

Message

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**From:** White, Gene (DTMB) [/O=MIGOV/OU=EXTERNAL  
(FYDIBOHF25SPDLT)/CN=RECIPIENTS/CN=E41EC58C2C644FC9A0B429CE7BD72D75]  
**Sent:** 4/18/2013 4:24:18 PM  
**To:** Rokely, Rick (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group  
(FYDIBOHF23SPDLT)/cn=Recipients/cn=9d7ab6c7031240cdbbd906b4c95c2c8b-Rokely Rick]  
**Subject:** Emailing: SOM CCTV by Ed Abshagen.xlsx  
**Attachments:** SOM CCTV by Ed Abshagen.xlsx

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The message is ready to be sent with the following file or link attachments:

SOM CCTV by Ed Abshagen.xlsx

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# **Facilities & Business Services Administration**

## **Building Operations Division**

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### **Joint Focus Meeting Minutes** **Tuesday, October 13, 2015** **General Office Building, Conference Room B** **1:30 p.m. – 3:00 p.m.**

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Leading the Meeting: Jamie Uphaus

❖ **Special Topics (20 Min.)**

- Health and Safety – Dan/Olivia
  - Monthly training is continuing, this month is a condensed LOTO awareness.
  - There is no licensing program for front end loader/backhoe, so no need for refresher.
    - ◆ Next class for staff needing the training is next week.
  - Will be scheduling more classes for bucket truck/aerial lift/scissor lift coming up soon.
  - Fall protection training is complete.
    - ◆ This is mandatory full day training- cannot leave early or show up late. Dan heard that there were some staff not in the training for the entire 8-hrs.
  - First aid training coming up.
    - ◆ Dan is having HR provide him with the list of staff and their expiration dates.
    - ◆ Dan/Olivia will be notifying/scheduling this refresher training soon.
  - PPE
    - ◆ Make sure that your staff is using PPE properly!!!
    - ◆ Safety is our 1<sup>st</sup> priority, even in emergency situations.
  - Loop in Dan for H&S related issues.

❖ **Director's Input – Keith Paasch**

- Alternate Work Schedules
  - Business standard is 8 a.m. – 5 p.m.
  - AWS request form is required for schedules outside 8-5
    - ◆ Need to include justification with requests
  - Requests for schedules starting prior to 7 a.m. will be scrutinized
- Ideas for monitor and web-page content
  - Mike Turnquist will be hiring a new staff member, this person will be maintaining and updating the buildings web-page, located here:  
<http://inside.michigan.gov/wr/buildings/buildings/Pages/default.aspx>
    - ◆ Looking for ideas on info that should be displayed.
  - Also looking for ideas for info that should be displayed on monitors in the building lobbies.
  - Send ideas to Ric/Jamie/Larry.
- SAMs
  - Jamie and Larry are now State Administrative Manager 15s, instead of Departmental Manager 15s.

❖ **Discussion Topics – Jamie Uphaus**

- Employee Recognition
  - Steve Doty received certificate for 15 years of State service.
  - Doug Church received an award for 20 years of State service.
- September X3 Report
  - Congrats to everyone! Thanks for all the work put in to ensure everyone made it into the green!
- Access Parking Ramps downtown during business hours.

**Next Meeting: Tuesday, October 27, 2015 9:30 a.m. - 11:00 a.m. GOB Conference Room A**

**COLLABORATION. COMMUNICATION. COOPERATION. CUSTOMER SERVICE**



- With the programming switch on our access cards over to the new DTMB Service level, parking ramp/lot access during daytime hours has been removed.
- Staff that require daytime access to the ramps in their State vehicles will need to make certain that a separate access card is obtained from the Parking Office and stored in the vehicle.
- If an emergency arises during the day and staff requires access to the Allegan/Ottawa Parking Ramps, then they can push the call buttons for entry.
  - ◆ Allegan Ramp call button location is at the Allegan Street entrance only.
  - ◆ Ottawa Ramp has call buttons located at both the Allegan and Ottawa Street entrances.
- We will retain the after-hours access to the parking ramps on our cards.
- Doug Church brought up concern on fork truck entering the ramp.
  - ◆ Brandon will double-check that dock access points are included in the new programming level.
  - ◆ When zone 2 switched over they obtained an access card to keep in the fork truck and that seems to be working fine for the staff.
  - ◆ Doug and Brandon will discuss further to coordinate a solution that works for both divisions.
- Fire Suppression Valve Locations
  - In case of emergency, please make sure staff is aware of locations of shut-off water valves.
  - Rodney requested prints detailing the locations, Butch said Fire Crew has these and will work on providing them to the zones.
  - Harle also stressed that the valves should be exercised to avoid problems.
- Tracking Temp hours internally
  - Formerly, we relied on HR to track hours and notify us when we were low on hours or out of hours.
  - Now, we need to track temp hours internally.
    - ◆ This is due to HR receiving info from Financial Services 2-4 weeks later than what is being worked, so we could have Temps out of hours and HR wouldn't know about until it is too late.
- ISID Contract – Insulation
  - DCD has awarded ISID contract #00585 for pipe/duct insulation to:  
Lansing Mechanical Insulation  
3315 Parmenter Rd.  
Durand, MI  
989.743.6408
  - The contract does not have a cap. It is a good idea to touch base with Kris Garrison regarding money for this work/projects.

❖ Alternate 15 Input – Larry Scates

- Janitorial Responsibilities during Snow Season
  - Please discuss and coordinate snow responsibilities for your facilities with the supervisor of your janitorial staff prior to the first snow.
  - For those with limited janitorial staff during the first half of the day, let supervisor know if they need to bring someone else in.

❖ MEP & Supply Chain Input

- Winter Gear
  - Time to order winter gear, which includes hat, coat and bibs.
  - Must be approved by zone supervisor.
  - Supply Chain Tech has or will be contacting each area for their order.
  - Chris provides boots and gloves for the snow crew as needed, but not new every year.
  - It is BOD policy that old coats/bibs must be returned when a replacement is issued.
- Surplus Form
  - In many areas it has been found that all kinds of things are being stashed away. Please ask yourselves whether you really can use it. If you have to think about it too long, then get rid of it.
    - ◆ When you come across surplus or scrap property in your zone that is no longer needed and needs to be trashed or could be recycled or donated, please complete the DTMB-0222 Disposal Request (attached to email with these minutes).

Next Meeting: Tuesday, October 27, 2015 9:30 a.m. - 11:00 a.m. GOB Conference Room A

**COLLABORATION. COMMUNICATION. COOPERATION. CUSTOMER SERVICE**

- ♦ You do not need to fill out an itemized list if you have several items. You may put down a general description. The completed form is sent to Daniel Aldaco, [aldacod@michigan.gov](mailto:aldacod@michigan.gov) and 517.373.9120. You may also contact Daniel with any questions or the Surplus support line at 517.373.9749.
- ♦ See DTMB Policy 400.09 State Surplus Management for more information as necessary: <http://inside.michigan.gov/dtmb/wr/psp/Documents/400.09%20State%20Surplus%20Program%20-%20Office%20Supplies%20and%20Furnishings.pdf>
- Bob Ruff specifically requested that no more items be stashed in the Allegan Ramp unassigned room. Zone 2 and Supply Chain will be tackling this room after the Grainger inventory tracking pilot is set-up in Con Hall.

❖ OIP Input – Brandon Philip

- As of Nov. 17<sup>th</sup> the Access/ID card station will be relocated from GOB to OPS CTR Rm. 109 (in the lobby).
  - OIP will send out communication.
- Signed new lease with Fisher Deck in Detroit near Cadillac Place
  - Provides 100 parking spaces that are currently being filled
- Increased desire for card access on non-DTMB owned/managed facilities.
  - MDOT is paying for cameras and card readers in their SE Michigan facility.
    - ♦ Honeywell has been contracted for the work but it will be tie in to our system.
    - ♦ OIP will only be taking care of the admin side, such as issuing cards, modifying access, etc.
  - They are considering doing this at their Auburn Hills location as well.
- Neal asked about the possibility of DTMB managed conference rooms in GTB and/or the current MSP HQ
  - Brandon stated that makes sense as we do not currently have any conference rooms available east of Con Hall. He stated that OIP would be happy to administer more conference rooms for BOD.
  - However, if the conference rooms are agency-leased, then the BOA would need to be adjusted.

❖ Zone Updates (*2 Mins Each*)

- Frank Broderick – West Zone
  - Traverse City
    - ♦ Carrier is on-site performing maintenance on the chiller.
    - ♦ Installed isolation valves in the heating system to allow for system maintenance without having to drain the entire system.
  - Grand Rapids
    - ♦ Amador started Monday. We are glad to have him and looking forward to working with him.
  - Escanaba: Business as usual.
- Mike Noonan – East Zone
  - Flint
    - ♦ Tested the water from our facility for lead and we came in at .001 and .004 and the limit is .015.
    - ♦ 7th floor is moving forward lobby is not much farther at this time.
  - Jackson
    - ♦ Set the new Trane rtu's this weekend and will be starting one up this week with connecting the duct work on the first unit and the second unit the following weekend.
    - ♦ The chiller demo is starting this week.
  - Saginaw: Nothing new.
  - State fair: Meeting this week to find out about extension of purchase.
- Al Vettese – Cadillac Place
  - Cleaned cooling towers # 1 and # 5, complete pm for both.
  - Limbach began boilers start up procedures along with DTMB crew, should be ready for startup as weather requires.
  - Suite L-275, painted, repaired and replace carpet, upgraded lighting and electrical, hvac, replaced filter and tested, for perspective new tenant.

**Next Meeting: Tuesday, October 27, 2015 9:30 a.m. - 11:00 a.m. GOB Conference Room A**

**COLLABORATION. COMMUNICATION. COOPERATION. CUSTOMER SERVICE**

- Steve Cooper, upgraded lighting and plugs at the State Police Post, these are now on emergency power, also completed the shop and locker room area.
- LED retrofits in common areas of building.
- Steve Doty – Zone 1
  - Hannah Building
    - ◆ Working with MDE on a few small modular projects and some surplus requests.
  - Ottawa Building
    - ◆ Working with LARA and BPBS on some small and medium sized projects.
  - Plaza sidewalks
    - ◆ We have scheduled some side walk repairs and lifts in preparation for winter season.
  - Hall of Justice
    - ◆ Moving forward with East Parking Ramp LED conversion project, we have been ordering lights to start project.
  - E911 Project
    - ◆ Contractors have been getting ahead of the building notice schedule and I have spoken to the E911 project manager to make sure the contractor doesn't upset the building tenants by coming in for the phone and data lines audits ahead of schedule.
  - SOM Warehouse Complex
    - ◆ Working with custodial vendor to increase the frequencies and details of the cleaning in the SOMWC facilities.
- Bob Ruff – Zone 2
  - We just finished up the 2<sup>nd</sup> conference room that we had a painting request for in the VanWagoner Building for MDOT.
  - The staff replaced a leaking 8" drain line in the Allegan Ramp last weekend.
  - We just finished installing a 55" TV in the Powell Conference Room for the DNR in Con Hall.
  - Aaron finishing up installing 8 dimming ballasts & dimmer switch in conf. room for LARA in Con Hall.
  - D.C. Byers is finishing up the ceiling repairs in the domestic cold water pump room that services the Williams Building.
- Doug Church – Zone 3
  - MLHC
    - ◆ Rotunda Windows Project; The Glass is in and Laux is working on tying in the ceiling and getting exterior ready for the granite.
    - ◆ The Zone Staff has completed learning center in the Museum.
    - ◆ Laux Construction is going to finish up the Rain Garden this week.
    - ◆ The A/C unit has failed in the Archives Vault and we are getting 3 bids to replace the unit.
  - JOC
    - ◆ Zone Staff starting remodel project on 2<sup>nd</sup> floor so MSP Capital Post can relocate into the bldg.
  - Austin
    - ◆ The reheats in the VAV's are plugged on the 1<sup>st</sup> floor and the staff is working on flushing the heating system. We may need to do this on overtime.
  - Mason
    - ◆ ORS punch list is completed.
    - ◆ New rest rooms on the 1<sup>st</sup> floor will be completed this week.
    - ◆ MIOSHA just sent out a punch list.
    - ◆ We are still working with CSM on the lighting system issues and they are working on the list now.
    - ◆ We are still having HVAC and lighting issues at the Mason.
    - ◆ Commissioning is still going on.
- Bob Bierwagen – Zone 4
  - Cass
    - ◆ We had a main sewage line back-up yesterday that lead to a late afternoon building closure. With the help of an outside contractor we narrowed the problem down to a possible defective flapper on the main sewer line check valve in the vault on the north side of the facility. We

**Next Meeting: Tuesday, October 27, 2015 9:30 a.m. - 11:00 a.m. GOB Conference Room A**

**COLLABORATION. COMMUNICATION. COOPERATION. CUSTOMER SERVICE**

managed to free up this sticky flapper so the system was flowing again and plan on replacing this flapper as soon as the new one arrives. With this area being deemed a confined space we have scheduled a contractor to complete this flapper replacement work and we are hoping they can get it done this week before it sticks again and creates another back-up problem.

- Governor's Residence
  - ◆ We had our last Grounds Meeting for the year yesterday afternoon as we prepare everything for the upcoming winter season.
- Romney
  - ◆ The 6<sup>th</sup> floor DTMB Budget office remodel project was completed last week.
- Lottery
  - ◆ We have a project on the 2<sup>nd</sup> floor for the MGCB that is scheduled to start tomorrow the 14<sup>th</sup>. This project involves the removal and relocation of some walls to expand the office and the addition of six cubicles to fill this new space. This is a joint venture that involves the DTMB Carpentry Crew, Facilities Staff and DBI. If everything goes as planned the project should be completed by mid-November.
- Roosevelt Ramp: Business as usual.
- Miscellaneous
  - ◆ We had our Bi-Annual Cass Key Contact mtg. yesterday and they seemed very pleased with how Facilities has been running in the building. We also have our Bi-Annual Romney Key Contact mtg. which is scheduled for tomorrow and hope to get the same positive feedback from them as well.
- Neal Droste – Zone 5
  - State Laboratory
    - ◆ Incinerator Project: New incinerator and stack is in place. Training went very well. Mechanical inspection and Plumbing inspections complete. Lightening arrestor is done as well.
  - Records Center
    - ◆ The Radiant Tube Heater Project: Completed.
    - ◆ Roof Replacement Project: Jud has received the 90% documents from Andy Sowinski at Partners in Architecture and set up a final review meeting with Partners.
  - MSPHQ
    - ◆ CAR Project: MSPHQ 2<sup>nd</sup> floor move December 2015.
  - Grand Tower
    - ◆ AHU Replacement Project: Work on bulletin #9 was continued on the 12th floor. Floors 15-12 are complete.
    - ◆ Perimeter heating system isolation valves Project: Completed.
- Scott Davis – Zone 6
  - Power Plant Operator- Will be reposting (requesting a temp interim)
    - ◆ Posted on 9/15/15-closing on 10/16/15, currently have 17 applicants
    - ◆ Currently have 3 operators and are training 2 individuals to cover in the event of an emergency
  - Energy Center
    - ◆ Absorption Chillers: Operational as designed, utilizing "free steam" cooling the complex up to approximately 72°F.
    - ◆ Heat Exchanger/Free Cooling: Preparing for use within the near future.
    - ◆ Centrifugal Chillers: Will be working upgrading control panels on unit #4.
    - ◆ Solar Turbine/HRSG: Operating as designed.
    - ◆ Boiler #1 (old unit): Passed inspection with notes of concern to address.
    - ◆ Thermal Storage: Utilizing to compliment absorption chiller capacity.
    - ◆ Metering Project
    - ◆ Insulation: Contractor insulate in plant/tunnels-on schedule.
    - ◆ Procedural Operating Documentation
      - Meeting with C2AE to begin design and format.
      - Update Meeting on 1/22/15 to review SOP's, Valve tagging and prelim layout.
      - Funding has been acquired, Dave Sproul will be scheduling a progress meeting.
    - ◆ Remaining Catwalk Access

**Next Meeting: Tuesday, October 27, 2015 9:30 a.m. - 11:00 a.m. GOB Conference Room A**

**COLLABORATION. COMMUNICATION. COOPERATION. CUSTOMER SERVICE**

- Meeting with Century A & E 11/19/14 to review preliminary designs.
  - Finalizing design, received an approximate cost from C2AE.
  - Pre-Bid Walk through June 8<sup>th</sup>, Bids due June 17<sup>th</sup>.
  - Laux Construction awarded the contract.
  - Pre-con meeting 10/09/15.
  - Interior steel is currently being fabricated, shop drawings nearly complete for exterior steel.
- ♦ Domestic Water Tower
  - H2O Towers completed the power washing and treatment of the exterior 10/08/15.
- General Service Building
  - ♦ Painting of Exterior project
    - MOP written, assigned to ODC. Met with Dennis Stamm/Adam Lach, reviewed project.
    - Mandatory pre-bid walk through- 4/13/15.
    - Kost Contracting awarded the contract.
    - Power washing-complete.
    - Main building-complete.
    - Trim and caulk-complete.
    - Punch list compiled- awaiting final closeout meeting.
  - ♦ Sewer Line/ AHU 9-10
    - Pre-Con meeting scheduled for 1/21/15.
    - Mandatory RFP meeting 4/17/14, Received Proposals 5/06/14-William A. Kibbe & Associates, Inc. chosen as PSC.
    - Moore Trosper started work on 3/23/15
      - The new sewer line-Complete.
      - Commissioning-complete.
      - Punch list has been generated-to be completed during the bulletin #2 work.
      - Bulletin #2 approved-booster pump and drywall to deck, work began 10/05/15.
- Operations Center
  - ♦ Aiding Treasury with Sound Masking Project.
    - Final Tuning currently being performed.
  - ♦ Treasury modular reconfiguration project.
    - Including carpet, lighting and paint.
    - SWS Modular Reconfiguration Phase1-complete.
    - SWS Modular Reconfiguration Phase2-begin 9/15/15.
  - ♦ OPS Hosting Center
    - Final meeting on punch list ~~July 22, 2015~~-postponed to 8/11/15, McGrath and Gute did not show- awaiting closeout documents per Dave McGrath.
  - ♦ OPS DTMB Technical Services
    - Modular Reconfiguration.
    - Timeline/scheduling Meeting 9/01/15.
    - Begin phase 1 on 9/25/15.
    - Phase 2 and 3 currently being scheduled for Nov. & Dec.
  - ♦ OPS DTMB CSC
    - Modular Reconfiguration- in design.
  - ♦ Parking Lot Improvements
    - Complete, awaiting close-out.
- Transportation Warehouse
  - ♦ Engineering Print Floor issue still on the table.
  - ♦ Installing LED light fixtures in the front office, 90% complete.
  - ♦ Piloting warehouse lighting fixtures in several areas prior to global replacement.
  - ♦ Earle Center Lighting is next on to be upgraded, eliminating the outdated dimmable can lights and upgrading to dimmable LED troffer fixtures.
  - ♦ Sent pictures of parking lot failures- working with Larry Scates.
- VTS
  - ♦ Will be working with contractor to repair exterior fence.
  - ♦ Reviewing parking lot for repair/replacement.
  - ♦ Reviewing options for building generator.

**Next Meeting: Tuesday, October 27, 2015 9:30 a.m. - 11:00 a.m. GOB Conference Room A**

**COLLABORATION. COMMUNICATION. COOPERATION. CUSTOMER SERVICE**

- Kirk Brennan – Zone 7
  - C & T
    - ◆ Moist Room Project is mostly completed including lead abatement, epoxy painting of the walls, new ceiling, LED lighting, FRP coverings on walls and ceilings.
    - ◆ Scope of work for the repair/replace exterior brick lentils is still being developed. Request for more stable temporary supports.
  - Forensics Lab: Business as usual.
  - GOB
    - ◆ SEOC project: Unit Roof top openings are being cut in the 3<sup>rd</sup> floor A wing. Drop ceilings and lights are being installed in the 1<sup>st</sup> and 2<sup>nd</sup> A wing as well.
    - ◆ DBI is reconfiguring office furniture in the 1<sup>st</sup> floor B wing for the scheduled CJIC move from downtown HQ on December 11<sup>th</sup>.
  - HazMat (EMHSTC)
    - ◆ Work has begun with the installation of a generator transfer switch for this building.
  - MSP Head Quarters
    - ◆ Ground water issues: any future action is on hold to see if water infiltration develops this winter or spring.
  - MSP Annex
    - ◆ Move ins are complete, monitor meeting is scheduled for new tenants October 22<sup>nd</sup> 2015.
  - PTA
    - ◆ Window Project: 90% complete remaining issues with some of the door walls, progress meeting scheduled for October 15<sup>th</sup>, 2015.
  - Drive Track
    - ◆ Working on a scheduled drive track winterization date is being requested from state police.
  - SOS
    - ◆ MDOS break room remodel North wing has been completed, appliances are going in.
    - ◆ Problem with original equipment heat exchanger is leaking in the South Mechanical room, quotes and scope of emergency repairs are being developed.
- Butch Kimball – BIS Controls & Fire Crew
  - Staff making progress on Standards Committee for controls.
  - Scheduling second session on the TIS continuous commissioning report for the MLHC Building.
  - Found plugged coils (VAV reheat) on 1<sup>st</sup> floor of Austin Building that were recently installed during a remodel.
  - Henry is continuing working with Johnson Controls on commissioning and tuning of the Mason Building.
  - Grand Tower (Bulletin 9) work has started.
  - Continue to work with East Zone on the Flint Project.
  - Working with Denice Ballard on a PO to replace an Allegan Ramp door (R-3).
  - Training on the new Honeywell Fire Panel this week and Herb will be taking possession of the software.
  - Amador Briseno has officially moved to GR and have started the replacement procedure.
  - Mike Damico has started with the Fire Crew.
- Chris Rankin – Grounds
  - Liquid De-icer – ready to be put on MIBID.
  - 400 Bldg.
    - ◆ Pads were poured for liquid de-icer tanks.
    - ◆ Will move out of library lot within 2 weeks.
  - Fleet
    - ◆ Snow removal trucks being sent to VTS for winter maintenance.
    - ◆ Will call zones when ready to be sent in.
  - Irrigation blow out: Secondary Complex complete. Capital Complex next week.
  - Annuals/grasses coming out.

**Next Meeting: Tuesday, October 27, 2015 9:30 a.m. - 11:00 a.m. GOB Conference Room A**

**COLLABORATION. COMMUNICATION. COOPERATION. CUSTOMER SERVICE**

❖ Staff Ideas/Concerns & Open Discussion *(10 Min.)*

- Next JFM will have a special topic/training session on Unscheduled OT. FS and BTS should both be in attendance for this meeting. If you cannot attend, please let Bethanie know.
- Rodney asked that when zone staff is being offered and working unscheduled OT, that the employee's BTS be notified. We will also discuss in next JFM training session.

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**COLLABORATION. COMMUNICATION. COOPERATION. CUSTOMER SERVICE**

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**From:** Knapp, Kathy (DTMB)  
**Sent:** Thursday, November 05, 2015 11:56 AM  
**To:** Bussema, Terry (DTMB); Christensen, Chris (DTMB); Doll, Jeanette (DTMB); Kelley, Kurt (MSP); Knapp, Kathy (DTMB); McKee, Ryan (DTMB); Moore, Ed (DTMB); Philip, Brandon (DTMB); Pratt, Jeff (DTMB); Rokely, Rick (DTMB); Sebastian, Steven (DTMB)  
**Subject:** Meeting Minutes  
**Attachments:** 110215 Meeting Minutes.docx; Ed Moore Cadillac Place Job Description Presentation October 2015 (5).pptx; McKee - ASIS Review 2015.pptx

Attached are the minutes and presentations from Monday's staff meeting.

Thank you Rick for taking notes.

Kathy

**Kathy Knapp**  
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OIP Staff Meeting  
January 12, 2016

Attendees: Terry Bussema, Chris Christensen, Kathy Knapp, Ryan McKee, Ed Moore, Brandon Philip, Jeff Pratt, Rick Rokely, Steve Sebastian

- Reviewed Action Items
- Project Updates
  - SEOC (Ryan)
    - Pushed move in date back to 1/30/16; contractor having trouble staying on schedule
    - Keying has been a problem for SEOC/GOB project
      - Multiple contractors trying to obtain the same keying systems has caused confusion
      - OIP will provide temporary cores
      - Ryan to provide Terry a map of doors requiring temp cores
    - Lists for access control have been received
    - Honeywell is building points
    - Cameras have been ordered
    - Next updated meeting scheduled for 01/13/16
  - JOC (Ryan)
    - Project is a few days ahead of schedule
    - Working with Steve on moving Central
      - Telecom is completing their work
      - Scheduled to move on 1/13
    - Carpet in common areas will be installed on 1/18; rest of the areas 1/19 & 1/20
    - Staff scheduled to move 1/28 or 1/29
  - Grand Rapids Security (Jeff)
    - Elevator card access will be activated 1/19
      - Puts elevators on 24/7 lockdown; access card will be required
    - BOD and Treasury are working together to relocate the Treasury payment window to the 1<sup>st</sup> floor
    - When funding is available turnstiles will be installed and cameras re-deployed
  - GOB (Ryan)
    - Locker room floor has been poured
    - Framing for 2<sup>nd</sup> and 3<sup>rd</sup> floors is underway
    - Conference rooms will be controlled by MSP
      - Delete current Outlook calendars
      - MSP will make available to other agencies; will retain “bumping rights”
    - Building name will change when the Colonel’s office moves in
  - Flint (Jeff)
    - Work on 7<sup>th</sup> floor continues
    - Lobby is still under renovation
    - Completion date has been move to February

- Access Control scheduled to work in Flint and when they arrived areas wasn't ready for them; happens frequently
- Building 600 (Jeff)
  - No update on renovations
  - Fire watch has ended as BOD believes system is working again
    - Central Control has already received test alarms
- CAR (Brandon)
  - Final MSP scheduled move is 4/15 to GOB
  - Next scheduled MSP move is 3/4 to GOB A
  - DHHS scheduled to move to 333 Grand 5/20 – 6/10
    - Pre-construction meeting with contractors was held yesterday
  - Building 100 – general renovations have started
    - Make sure OIP knows when fire system changes will take place; Steve has already talked to Butch
    - Tim Hall met with Jeff and Terry regarding keying and lock
  - Jeanette is working with Kirk on monitor training for new staff in GOB; Brody has talked to staff about security and evacuation
- Hosting centers are wanting to manage their own fire systems
  - This is not allowed in other areas/buildings
  - Is FBSA aware of this plan/have they approved
- Flint Water Crisis
  - Agency PIOs are moving into the 5<sup>th</sup> floor of the Flint State Office Building
  - OIP will increase security in the building
    - Increased patrols; especially in light of State of the State next week
  - Central Control will monitor Flint cameras more closely
- JFM Meeting Minutes
  - Brandon will send most recent meeting minutes
  - BOD would like to discuss leveraging Central Control when there is bad weather (i.e. snow)
    - Have Central contact DM if they notice necessary plowing isn't being done
    - Larry Scates to schedule a meeting
  - No questions on last minutes provided
- Jeff reviewed his job duties
  - See attached PowerPoint
  - Gene scheduled to present at the February staff meeting
- Briefly discussed active shooter training
  - OSE does have concerns with what may be presented
  - Chris working with MSP, OSE and Civil Service to develop training
- Succession Planning Briefing Documents
  - Documents exchanged for review due to Chris by 1/16/16
  - Discussed if documents are beneficial
    - Currently more of a task than a tool because we don't seem to have people to give knowledge to
    - Need to designate a back-up for each person
      - Keep saying there's not enough staff but we need to work with what we have and make a plan

- Continue writing succession planning briefings at this time
- Chris experiment
  - Terry made out like a bandit
  - Everyone asked to think about what we can control to make things better
    - Attitude, sharing of information, things to make our work environment better
- Around the room
  - Ed – no update
  - Steve – no update
  - Terry – Mason Building nearly ready for lockdown test
  - Rick – no update
  - Kathy – no update
  - Ryan – no update
  - Brandon – no update
- Action Items
  - Ryan to provide Terry the GOB map
- Action Items from Previous Meetings
  - Ryan to make sure all background checks have been completed
  - Strategic Plan Team Leads should document their plans
  - Review Succession Document/Job Briefing if you received one and return comments to Chris on 01/15/16
  - Continue to write a Succession Document/Job Briefing or update an OIP policy for each staff meeting
  - Gene to keep OIP updated on the Telecom maintenance windows
  - Jeff to write a policy on how to request additional card readers to secure stairwells and office areas
  - Steve to have Central Control staff draft a procedure for bringing on a new fire system
    - Having some trouble getting information from BOD

---

**From:** Philip, Brandon (DTMB)  
**Sent:** Tuesday, January 19, 2016 8:57 AM  
**To:** Doll, Jeanette (DTMB);McKee, Ryan (DTMB)  
**Cc:** Christensen, Chris (DTMB);Rokely, Rick (DTMB)  
**Subject:** FW: Flint Volunteer Cards

Jeanette and Ryan ---

It's my understanding that we need to track internal costs related to Flint emergency activities. Here are the costs related to the 300 Flint Volunteer Cards that we provided last week:

Labor

4 hours CSC: \$178.04  
3 hours Access Control: \$157.47  
**Labor Total: \$335.51**

Materials

300 ID cards: \$30  
300 Lanyards: \$132  
300 Clips: \$69  
300 Security Holograms: \$24  
1 color printer ribbon: \$338  
1 printer retransfer film: \$72  
**Materials Total: \$665.00**

**Grand Total Cost: \$1,000.51**

I was also told that we supplied an additional 350 lanyards for use in Flint. If that's the case, we need to add an additional \$154 to the grand total.

Thanks.

Brandon Philip

Michigan Department of Technology, Management & Budget  
Cybersecurity & Infrastructure Protection  
Office of Infrastructure Protection  
(517) 335-4110



**HELP. CONNECT. SOLVE.**

---

**From:** Pratt, Jeff (DTMB)  
**Sent:** Friday, January 15, 2016 10:56 PM  
**To:** Philip, Brandon (DTMB) <[philipb@michigan.gov](mailto:philipb@michigan.gov)>  
**Subject:** Fwd: Flint Volunteer Cards

Brandon

The ladies and Craig worked to create 300 volunteer ID cards today in support of the Flint State of emergency. Typically We need to provide accounting data for services and supplies we provide in such cases. This being said I would suggest provide Jeanette with the costs related to this effort

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4 hours CSC Ladies

3 hours Craig B

Consumables

300 ID cards

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1 color printer ribbon

1 printer retransfer film

Thanks,

Jeff

Begin forwarded message:

**From:** "Keilen, Elizabeth (DTMB)" <[KeilenE1@michigan.gov](mailto:KeilenE1@michigan.gov)>

**Date:** January 15, 2016 at 15:12:37 EST

**To:** "Pratt, Jeff (DTMB)" <[pratti@michigan.gov](mailto:pratti@michigan.gov)>

**Cc:** "Philip, Brandon (DTMB)" <[philipb@michigan.gov](mailto:philipb@michigan.gov)>, "Parker, Alexandra (DTMB)" <[ParkerA8@michigan.gov](mailto:ParkerA8@michigan.gov)>

**Subject:** Flint Volunteer Cards

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*Thank you,*

Elizabeth Keilen

Michigan Department of Technology, Management & Budget

Cybersecurity & Infrastructure Protection

Customer Service Center

Office: (517) 335-4106

Fax: (517) 241-4658

[Keilene1@michigan.gov](mailto:Keilene1@michigan.gov)



HELP. CONNECT. SOLVE.

---

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**Cc:** Christensen, Chris (DTMB);Rokely, Rick (DTMB)  
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I am also tracking who has assisted in this incident, so please let me know who else besides Jeff and Craig have provided assistance.

Jeanette

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**Sent:** Tuesday, January 19, 2016 8:57 AM  
**To:** Doll, Jeanette (DTMB) <[jdoll@michigan.gov](mailto:jdoll@michigan.gov)>; McKee, Ryan (DTMB) <[rmckee1@michigan.gov](mailto:rmckee1@michigan.gov)>  
**Cc:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Rokely, Rick (DTMB) <[RokelyR1@michigan.gov](mailto:RokelyR1@michigan.gov)>  
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**Cc:** "Philip, Brandon (DTMB)" <[philipb@michigan.gov](mailto:philipb@michigan.gov)>, "Parker, Alexandra (DTMB)" <[ParkerA8@michigan.gov](mailto:ParkerA8@michigan.gov)>  
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Office: (517) 335-4106

Fax: (517) 241-4658

[Keilene1@michigan.gov](mailto:Keilene1@michigan.gov)



**HELP. CONNECT. SOLVE.**



---

**From:** Philip, Brandon (DTMB)  
**Sent:** Tuesday, January 19, 2016 9:08 AM  
**To:** Doll, Jeanette (DTMB);McKee, Ryan (DTMB)  
**Cc:** Christensen, Chris (DTMB);Rokely, Rick (DTMB)  
**Subject:** RE: Flint Volunteer Cards

Elizabeth and Allie assisted with card creation.

Thanks.

Brandon Philip

Michigan Department of Technology, Management & Budget  
Cybersecurity & Infrastructure Protection  
Office of Infrastructure Protection  
(517) 335-4110



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---

**From:** Doll, Jeanette (DTMB)  
**Sent:** Tuesday, January 19, 2016 9:07 AM  
**To:** Philip, Brandon (DTMB) <[philipb@michigan.gov](mailto:philipb@michigan.gov)>; McKee, Ryan (DTMB) <[mckeer1@michigan.gov](mailto:mckeer1@michigan.gov)>  
**Cc:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Rokely, Rick (DTMB) <[RokelyR1@michigan.gov](mailto:RokelyR1@michigan.gov)>  
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**To:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; McKee, Ryan (DTMB) <[mckeer1@michigan.gov](mailto:mckeer1@michigan.gov)>  
**Cc:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Rokely, Rick (DTMB) <[RokelyR1@michigan.gov](mailto:RokelyR1@michigan.gov)>  
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**Materials Total: \$665.00**

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Brandon Philip

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---

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**Labor**

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Thanks,  
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*Thank you,*

Elizabeth Keilen

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Office: (517) 335-4106  
Fax: (517) 241-4658  
[Keilene1@michigan.gov](mailto:Keilene1@michigan.gov)



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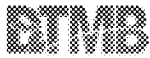
**From:** Philip, Brandon (DTMB)  
**Sent:** Tuesday, January 19, 2016 9:11 AM  
**To:** Doll, Jeanette (DTMB);McKee, Ryan (DTMB)  
**Cc:** Christensen, Chris (DTMB);Rokely, Rick (DTMB)  
**Subject:** RE: Flint Volunteer Cards

Jeanette --

I just spoke with Rick Rokely. He assisted Chris (for 5 hours) in obtaining a bunch of iPads last Friday.

## Brandon Philip

Michigan Department of Technology, Management & Budget  
Cybersecurity & Infrastructure Protection  
Office of Infrastructure Protection  
(517) 335-4110



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---

**From:** Doll, Jeanette (DTMB)  
**Sent:** Tuesday, January 19, 2016 9:07 AM  
**To:** Philip, Brandon (DTMB) <[philipb@michigan.gov](mailto:philipb@michigan.gov)>; McKee, Ryan (DTMB) <[mckeer1@michigan.gov](mailto:mckeer1@michigan.gov)>  
**Cc:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Rokely, Rick (DTMB) <[RokelyR1@michigan.gov](mailto:RokelyR1@michigan.gov)>  
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4 hours CSC: \$178.04

3 hours Access Control: \$157.47

Labor Total: \$335.51

Materials

300 ID cards: \$30

300 Lanyards: \$132

300 Clips: \$69

300 Security Holograms: \$24

1 color printer ribbon: \$338

1 printer retransfer film: \$72

**Materials Total: \$665.00**

**Grand Total Cost: \$1,000.51**

I was also told that we supplied an additional 350 lanyards for use in Flint. If that's the case, we need to add an additional \$154 to the grand total.

Thanks.

Brandon Philip

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**HELP. CONNECT. SOLVE.**

---

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**To:** Philip, Brandon (DTMB) <[philipb@michigan.gov](mailto:philipb@michigan.gov)>

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Brandon

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**Labor**

4 hours CSC Ladies

3 hours Craig B

**Consumables**

300 ID cards

300 Lanyards

300 Security Holograms

1 color printer ribbon

1 printer retransfer film

Thanks,  
Jeff

Begin forwarded message:

**From:** "Keilen, Elizabeth (DTMB)" <[KeilenE1@michigan.gov](mailto:KeilenE1@michigan.gov)>  
**Date:** January 15, 2016 at 15:12:37 EST  
**To:** "Pratt, Jeff (DTMB)" <[pratti@michigan.gov](mailto:pratti@michigan.gov)>  
**Cc:** "Philip, Brandon (DTMB)" <[philipb@michigan.gov](mailto:philipb@michigan.gov)>, "Parker, Alexandra (DTMB)" <[ParkerA8@michigan.gov](mailto:ParkerA8@michigan.gov)>  
**Subject:** Flint Volunteer Cards

Jeff,

Per your request, Allie and I spent 4 hours on creating 150 volunteer cards today. Please let me know if you have any questions!

*Thank you,*

Elizabeth Keilen

Michigan Department of Technology, Management & Budget  
Cybersecurity & Infrastructure Protection  
Customer Service Center  
Office: (517) 335-4106  
Fax: (517) 241-4658  
[Keilene1@michigan.gov](mailto:Keilene1@michigan.gov)



**HELP. CONNECT. SOLVE.**

---

**From:** Philip, Brandon (DTMB)  
**Sent:** Tuesday, January 19, 2016 9:32 AM  
**To:** Brennan, Tammy (DTMB); Lawson, Michelle (DTMB); Parking  
**Cc:** Tefft, Niki (DTMB); Rokely, Rick (DTMB)  
**Subject:** Flint Parking - Priority Request

**Importance:** High

Michelle and Tammy –

Please create an account in AIMS for the Flint Water Emergency and assign 25 reserved parking spaces to it (according to the numbers I have, we should have enough vacancies to accommodate this). I will also need parking maps with each of the assigned parking spaces highlighted (one set of maps with all spaces highlighted). I need this electronically...if you are unsure how to do this, please ask Rick for assistance.

I will need to know who completed this request and how much time it took...this is required for overall SEOC emergency cost tracking.

I would like to have this complete today.

Thank you!

Brandon Philip

Michigan Department of Technology, Management & Budget  
Cybersecurity & Infrastructure Protection  
Office of Infrastructure Protection  
(517) 335-4110



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---

**From:** Philip, Brandon (DTMB)  
**Sent:** Tuesday, January 19, 2016 1:09 PM  
**To:** McKee, Ryan (DTMB); Doll, Jeanette (DTMB)  
**Cc:** Christensen, Chris (DTMB); Rokely, Rick (DTMB)  
**Subject:** RE: Flint Volunteer Cards

Ryan --

I spoke with Craig and here are the updated costs based on 650 IDs:

Labor

4 hours CSC (REG): \$178.04  
3 hours Access Control (REG): \$157.47  
6 hours Access Control (OT/On Call): \$389.22  
**Labor Total: \$724.73**

Materials

300 ID cards: \$65  
300 Lanyards: \$286  
300 Clips: \$149.50  
300 Security Holograms: \$52  
1 color printer ribbon: \$338  
1 printer retransfer film: \$72  
**Materials Total: \$962.50**

**Grand Total Cost: \$1,687.23**

FYI – I am using loaded labor rates...

Brandon Philip

Michigan Department of Technology, Management & Budget  
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Office of Infrastructure Protection  
(517) 335-4110



**HELP. CONNECT. SOLVE.**

---

**From:** McKee, Ryan (DTMB)  
**Sent:** Tuesday, January 19, 2016 12:31 PM  
**To:** Philip, Brandon (DTMB) <[philipb@michigan.gov](mailto:philipb@michigan.gov)>; Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>  
**Cc:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Rokely, Rick (DTMB) <[RokelyR1@michigan.gov](mailto:RokelyR1@michigan.gov)>  
**Subject:** RE: Flint Volunteer Cards

Brandon,



Can you please check with Craig? He was called in to print additional cards over the weekend. We provided a total of 650 ID cards to date.

Also, on the employee costs, please separate OT and regular time.

Thank you,

Ryan McKee  
DTMB Cybersecurity & Infrastructure Protection  
Office of Infrastructure Protection  
p: (517) 241-3356  
e: [mckeer1@michigan.gov](mailto:mckeer1@michigan.gov)

---

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---

**From:** Philip, Brandon (DTMB)  
**Sent:** Thursday, February 04, 2016 12:21 PM  
**To:** Doty, Steven (DTMB); Keeder, Gerald (DTMB); Ruff, Robert (DTMB); Pattison, Brandon (DTMB); Droste, Neal (DTMB); Ross, Rodney (DTMB); Bierwagen, Bob (DTMB); Peake, Kyle (DTMB); Church, Douglas (DTMB); Robinson, Harle (DTMB); Davis, Scott (DTMB); Chadwick, Patrick (DTMB); Brennan, Kirk (DTMB); Davis, Glenn (DTMB); Broderick, Frank (DTMB); Johnson, Benjamin (DTMB); Noonan, Michael (DTMB); Walts, Brian (DTMB); Sullivan, Rick (DTMB); Cooper, Zachary (DTMB); Klotz, Clinton (DTMB)  
**Cc:** Bussema, Terry (DTMB); Uphaus, Jamie (DTMB); Scates, Larry (DTMB); Christensen, Chris (DTMB); Pratt, Jeff (DTMB)  
**Subject:** OIP New Access Card Reader Requests  
**Attachments:** Access Card Reader Requests 2-4-16.xlsx

BOD Management Team –

Attached is the most recent list of new access card reader requests - changes on the CURRENT tab are **bolded** and changes on the COMPLETE tab are in red.

Let me know if you have any questions.

Brandon Philip

Michigan Department of Technology, Management & Budget  
Cybersecurity & Infrastructure Protection  
Office of Infrastructure Protection  
(517) 335-4110



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---

**From:** Christensen, Chris (DTMB)  
**Sent:** Friday, February 12, 2016 5:03 PM  
**To:** Bidelman, Craig (DTMB); Brennan, Tammy (DTMB); Bussema, Terry (DTMB); Christensen, Chris (DTMB); Doll, Jeanette (DTMB); Fulger, Ron (DTMB); Goodenough, Cody (DTMB); Huybrechts, Thomas (DTMB); Keilen, Elizabeth (DTMB); Knapp, Kathy (DTMB); Kost, Ryan (DTMB); Lawson, Michelle (DTMB); Lucas, Matthew (DTMB); McKee, Ryan (DTMB); Mikula, Mark (DTMB); Mitchell, Guy (DTMB); Moore, Ed (DTMB); Morrison, Robert (DTMB); Nichols, Jim (DTMB); Parker, Alexandria (DTMB); Philip, Brandon (DTMB); Powell, Kelly (DTMB); Pratt, Jeff (DTMB); Rokely, Rick (DTMB); Ruedisale, Mary (DTMB); Schlegel, Nicolle (DTMB); Sebastian, Steven (DTMB); Shuler, Georgia (DTMB); Simon, Nathan (DTMB); Smith, David (DTMB); Tefft, Niki (DTMB); Thornton, Craig (DTMB); Tipton, Bob (DTMB); Tyree, John (DTMB)  
**Subject:** FW: NEW DEADLINE - Time Sensitive Request

Please see the email below and let me know if your name should be on the list to search for the Flint Issues.

Thanks

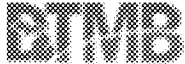
Chris Christensen

Director of Infrastructure Protection

Office: (517) 241-2188

Cell: (517) 243-1647

[Christensenc4@michigan.gov](mailto:Christensenc4@michigan.gov)



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Begin forwarded message:

**From:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Date:** February 12, 2016 at 3:57:18 PM EST  
**To:** "Allen, Charlotte (DTMB)" <[AllenC1@michigan.gov](mailto:AllenC1@michigan.gov)>, "Behen, David (DTMB)" <[Behend@michigan.gov](mailto:Behend@michigan.gov)>, "Best, Marcy (DTMB)" <[BestM@michigan.gov](mailto:BestM@michigan.gov)>, "Brownlee, Jeff (DTMB)" <[Brownleel@michigan.gov](mailto:Brownleel@michigan.gov)>, "Buhs, Caleb (DTMB)" <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>, "Davenport, Rodney (DTMB)" <[DavenportR1@michigan.gov](mailto:DavenportR1@michigan.gov)>, "Donnan, Chanda (DTMB)" <[DonnanC@michigan.gov](mailto:DonnanC@michigan.gov)>, "Fortino, Diane (DTMB)" <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>, "Gelisse, Ashley (DTMB)" <[GelisseA@michigan.gov](mailto:GelisseA@michigan.gov)>, "Gilliland, Michael (DTMB)" <[gillilandm@michigan.gov](mailto:gillilandm@michigan.gov)>, "Gonzalez, Tonyia (DTMB)" <[GonzalezT1@michigan.gov](mailto:GonzalezT1@michigan.gov)>, "Griswold, Kim (DTMB)" <[GRISWOLDK@michigan.gov](mailto:GRISWOLDK@michigan.gov)>, "Ingersoll, Jean (DHHS)" <[IngersollJ@michigan.gov](mailto:IngersollJ@michigan.gov)>, "Jeffery, Phillip (DTMB)" <[JefferyP@michigan.gov](mailto:JefferyP@michigan.gov)>, "King, Susan (MCSC)" <[KingS5@michigan.gov](mailto:KingS5@michigan.gov)>, "Kopacsi, Christian (DTMB)" <[KopacsiC@michigan.gov](mailto:KopacsiC@michigan.gov)>,

"Lowe, Richard (DTMB)" <lower@michigan.gov>, "Manning, Kelly (DTMB)" <ManningK4@michigan.gov>, "Mathews, Jamie (DTMB)" <MathewsJ@michigan.gov>, "McFarlane, James (DTMB)" <mcfarlanej@michigan.gov>, "Nixon, Ruth (DTMB)" <NixonR@michigan.gov>, "Palmer, Jason (DTMB)" <PalmerJ2@michigan.gov>, "Rabidoux, Jill (DTMB)" <RabidouxJ@michigan.gov>, "Ragsdale, Aimee (DTMB)" <RagsdaleA@michigan.gov>, "Schafer, Dana (DTMB)" <schaferd1@michigan.gov>, "Swanson, Eric (DTMB)" <swansone@michigan.gov>, "Sweeney, Matthew (DTMB)" <SweeneyM1@michigan.gov>, "Taylor, Beverly (DTMB)" <TaylorB8@michigan.gov>, "Trakul, Pamela (DTMB)" <TrakulP@michigan.gov>, "Turnquist, Michael (DTMB)" <TurnquistM@michigan.gov>, "VanCoevering, Joyce (DTMB)" <VancoeveringJ1@michigan.gov>, "Vanden Bosch, Kerrie (DTMB)" <vandenboschk@michigan.gov>, "Wellman, Jeff (DTMB)" <WellmanJ1@michigan.gov>  
Cc: "Baker, Natasha (SRO)" <BakerNS@michigan.gov>, "Hawks, Orlene (DTMB)" <HawksO@michigan.gov>

**Subject: NEW DEADLINE - Time Sensitive Request**

Senior Management Team,

We just received the search terms for the document production. (See below.) Given the lateness of this email, we are asking you send your list of custodians to Jean Ingersoll **no later than noon on Tuesday, February 16.**

We are not asking you to conduct any searches right now. Further directions will come from Jean.

Search terms:

Legionnaire  
Legionella  
"boil water order" & "Flint" (anywhere in document)  
"coli" & Flint (anywhere in document)  
"bacteria" & "Flint" (anywhere in document)  
"microb" & "Flint" (anywhere in document)  
"TTHM" & "Flint" (anywhere in document)  
"Lead" & "Flint" (anywhere in document)  
"emergency" & "Flint" (anywhere in document)  
Karegnondi  
"Genesee County Health Department"  
"Flint" (within sentence) "utilities"  
"Lead and Copper Rule"  
"Detroit Water and Sewerage Department" & "Flint" (anywhere in document)  
"DWSD" & "Flint" (anywhere in document)  
"Flint River"  
"Pb" & "water" (anywhere in document)  
"KWA"

Please call me or Jean if you have any questions.

Brom

---

**From:** Stibitz, Brom (DTMB)

**Sent:** Thursday, February 11, 2016 4:40 PM

**To:** Allen, Charlotte (DTMB) <AllenC1@michigan.gov>; Behen, David (DTMB) <Behend@michigan.gov>; Best, Marcy (DTMB) <BestM@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Buhs, Caleb (DTMB) <BuhsC@michigan.gov>; Davenport, Rodney (DTMB) <DavenportR1@michigan.gov>;

Donnan, Chanda (DTMB) <DonnanC@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Gelisse, Ashley (DTMB) <GelisseA@michigan.gov>; Gilliland, Michael (DTMB) <gillilandm@michigan.gov>; Gonzalez, Tonyia (DTMB) <GonzalezT1@michigan.gov>; Griswold, Kim (DTMB) <GRISWOLDK@michigan.gov>; Ingersoll, Jean (DHHS) <ingersollJ@michigan.gov>; Jeffery, Phillip (DTMB) <JefferyP@michigan.gov>; King, Susan (MCSC) <KingS5@michigan.gov>; Kopacsi, Christian (DTMB) <KopacsiC@michigan.gov>; Lowe, Richard (DTMB) <lower@michigan.gov>; Manning, Kelly (DTMB) <ManningK4@michigan.gov>; Mathews, Jamie (DTMB) <MathewsJ@michigan.gov>; McFarlane, James (DTMB) <mcfarlanej@michigan.gov>; Nixon, Ruth (DTMB) <NixonR@michigan.gov>; Palmer, Jason (DTMB) <PalmerJ2@michigan.gov>; Rabidoux, Jill (DTMB) <RabidouxJ@michigan.gov>; Ragsdale, Aimee (DTMB) <RagsdaleA@michigan.gov>; Schafer, Dana (DTMB) <schaferd1@michigan.gov>; Stibitz, Brom (DTMB) <StibitzB@michigan.gov>; Swanson, Eric (DTMB) <swansone@michigan.gov>; Sweeney, Matthew (DTMB) <SweeneyM1@michigan.gov>; Taylor, Beverly (DTMB) <TaylorB8@michigan.gov>; Trakul, Pamela (DTMB) <TrakulP@michigan.gov>; Turnquist, Michael (DTMB) <TurnquistM@michigan.gov>; VanCoevering, Joyce (DTMB) <VancoeveringJ1@michigan.gov>; Vanden Bosch, Kerrie (DTMB) <vandenboschk@michigan.gov>; Wellman, Jeff (DTMB) <WellmanJ1@michigan.gov>

**Subject:** Time Sensitive Request

SMT,

Jean Ingersoll is leading DTMB's effort to comply with document production requests related to freedom of information requests and certain lawsuits against the state.

At some point during the day tomorrow, Jean will share with you a list of standard "search terms" which we will use to compile documents related to this lawsuit.

**Within 2 hours of receiving this email from Jean, you need to respond with a list of likely custodians from your work area.** Jean may have more information on this tomorrow, but generally speaking a custodian will be a staff member who might reasonably be expected to have documents (electronic or otherwise) that correspond to the issues identified in the search terms.

If you have any questions, please call me or Jean. This is an important issue and I thank you in advance for your attention to this matter.

Brom Stibitz  
Chief Deputy Director  
Michigan Department of Technology, Management and Budget  
[stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004



**HELP. CONNECT. SOLVE.**

---

**From:** DTMB-Directors-Office  
**Sent:** Thursday, February 18, 2016 8:13 AM  
**To:** Behen, David (DTMB);Donnan, Chanda (DTMB);Buhs, Caleb (DTMB);Davenport, Rodney (DTMB);Gelisse, Ashley (DTMB);Gilliland, Michael (DTMB);Spaniolo, Natalie (DTMB);Wilke, Lacey (DTMB);Stansfield, Marsha (DTMB);Ballard, Denise (DTMB);Hampton, Trisha (DTMB);DeCamp, Greg (DTMB);Gibson, Jennifer (DTMB);Hengesbach, Dane (DTMB);Ingersoll, Jean (DTMB);Jeffery, Phillip (DTMB);Philip, Brandon (DTMB);Kopacsi, Christian (DTMB);Doll, Jeanette (DTMB);McKee, Ryan (DTMB);Pratt, Jeff (DTMB);Knapp, Kathy (DTMB);Bidelman, Craig (DTMB);Bussema, Terry (DTMB);Rokely, Rick (DTMB);Tefft, Niki (DTMB);Schlegel, Nicolle (DTMB);Parker, Alexandra (DTMB);Keilen, Elizabeth (DTMB);McPherson, Victoria (DTMB);Christensen, Chris (DTMB);Lawson, Michelle (DTMB);Nevai, Tom (DTMB);Evans, Carter (DTMB);Fick, James (DTMB);McKee, Robert (DTMB);Perry, Blane (DTMB);Riddering, Eric (DTMB);Rodgers, Anthony (DTMB);Trial, Larry (DTMB);Thompson, Kyleigh (DTMB);Glomski, Tom (DTMB);Seeger, Seth (DTMB);Lee, Timothy (DTMB);Sikkema, Tyler (DTMB);Manning, Kelly (DTMB);McFarlane, James (DTMB);Galeazzi, Tiziana (DTMB);Das, Rajiv (DTMB);Pung, Linda (DTMB);Hogan, James (DTMB);Westfall, Laurie (DTMB);Palmer, Jason (DTMB);Stibitz, Brom (DTMB);Trakul, Pamela (DTMB);Swanson, Eric (DTMB);Blastic, Laura (DTMB);Furseth, Kristen (DTMB);Brancheau, Laura (DTMB);Sebok, Yvonne (DTMB);Stankiewicz, Richard (DTMB);Vera, Jason (DTMB);Jehnsen, Jeremy W (DTMB);Jodway, Kenneth (DTMB);Newman, Jeremy (DTMB);Vijayaveeraraghavan, Anupkumar (DTMB);Harmon, Paul (DTMB);Root, Everett (DTMB);Pauley, Suzanne (DTMB);Thompson, John (DTMB);Nolan, Anne (DTMB);Peterson, Rick (DTMB);Stiffler, Michelle (DTMB);Patke, Sunit (DTMB);Estill, John (DTMB);Seckelman, Joe (DTMB);Martin, Ellen (DTMB);Aprill, Brian (DTMB);Ross, Josh (DTMB);Locke, Joel (DTMB);Cross, Steven (DTMB);Clark, John (DTMB);Olkowski, Tony (DTMB);Noldy, Scott (DTMB);Baer, John (DTMB);Dickinson, Holly (DTMB);Post, Corey (DTMB);Cantin, David (DTMB);Brun, Jeremy (DTMB);Hartsuff, Lisa (DTMB);Kosloski, Joni (DTMB);Jordan, Gerald (DTMB);Sweeney, Matthew (DTMB);Turnquist, Michael (DTMB);Morgan, Dan (DTMB);Droste, Kerri (DTMB);Paasch, Keith (DTMB);Scates, Larry (DTMB);Noonan, Michael (DTMB);Walts, Brian (DTMB);Martin, Ric (DTMB);Burns, Robert (DTMB);Doxie, William (DTMB);Clark, Jim (DTMB);Bailey, Maureen (DTMB);Bos, Troy (DTMB);Phillippo, Jamie (DTMB);Spitzley, Troy (DTMB);Darby, Marchan (DTMB);Hawes, Keith (DTMB);Wright, Seth (DTMB);Rambo, Carolyn (DTMB);Millimaki, Shelly (DTMB);Nelson, Christopher (DTMB);Murphy, Chris (DTMB);Clark, Stephanie (DTMB);Cischke, Roy (DTMB);Hofmeister, David (DTMB);Reynolds, Vince (DTMB);VanCoevering, Joyce (DTMB);Ragla, Beth (DTMB);Shaw, Gary (DTMB);Wonn, Michael (DTMB);Thompson, Kristi (DTMB);Goodine, Tom (DTMB);Armstrong, Mike (DTMB);Doyle, James (DTMB);Hampton, Kristen (DTMB);Miller, Mark (DTMB);Cooley, Tom (DTMB);Waltersdorf, Rex (DTMB);Monroe, Jerry (DTMB);Bergan, Kristin (DTMB);Banks, William (DTMB);Dyson, Mike (DTMB);Stiles, Dan (DTMB);Chipman, Dan (DTMB);Hodgman, Steve (DTMB);Martin, Todd (DTMB);Weston, Jessica (DTMB);Fitton, Scott (DTMB);Sample, Brice (DTMB);Vanden Bosch, Kerrie (DTMB);Wellman, Jeff (DTMB);Brownlee, Jeff (DTMB);Maynard, Sharon (DTMB);Calahan, Heather (DTMB);Cook, Rebecca (DTMB);Hayes, Genevieve (DTMB);Riehle, Jenni (DTMB);Falik, Tom A. (DTMB);Pemble, William (DTMB);Sambiagio, Melissa (DTMB);Cieciwa, Sue (DTMB);Hunter, Lymon (DTMB);Dufour, Yvon (DTMB);Camp, William (DTMB);Hatch,



**To:** David (DTMB);Troub, Shelby (DTMB);Epps, Stephanie (DTMB);Herman, Christyn (DTMB);Bliss, Mike (DTMB);Guardiola, Jamie (DTMB);'jfoley@us.ibm.com'  
**Cc:** Stanaway, Deb (DTMB);Huhn, Jacqueline (DTMB);McQuaid, John (DTMB);Reasner, Richard (DTMB);Rakowski, Rock (DTMB);Gonzalez, Tonyia (DTMB);Doerr, Stephen (DTMB);Isaacs, Jan (DTMB)  
**Subject:** RE: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint  
**Importance:** High

**Please note the attached document has been updated. Please discard the previous version. A paper copy will be provided to you at the meeting.**



All DTMB  
Custodians of Co...

-----Original Appointment-----

**From:** Longanbach, Janelle (DTMB) **On Behalf Of** DTMB-Directors-Office  
**Sent:** Wednesday, February 17, 2016 1:21 PM  
**Subject:** Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint  
**When:** Thursday, February 18, 2016 2:00 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** Ottawa Building - Upper Level – Conference Room 4 OR Call-in: 866-390-1828 access code: 1842654

*Please note this meeting can be attended in person or via conference call-in. Location and Dial in information are provided below.*

<< File: All DTMB Custodians of Correspondence Related to Flint.pdf >>

**\*This attachment was updated 2/18/16**

\*See agenda below

**Requested By:**  
DTMB Executive Staff

**Location:**  
Ottawa Building  
Upper Level – Conference Room 4  
611 W. Ottawa Street  
Lansing, MI 48933

Call-in: 866-390-1828  
Access code: 1842654

**Security:**  
Please have your State Employee ID showing at all times.

**Parking:**

Metered parking is available along Ottawa and Pine street.

**Briefing:**

In recent months, the State of Michigan has received a number of requests to produce documents related to the water emergency in Flint. You have been identified as a potential custodian of relevant/responsive correspondence and/or documents related to these requests. As a custodian, you are required to produce, by a certain date, any documents containing certain search terms. In this meeting we will review instructions for the process of identifying, compiling, scanning, and copying the necessary information.

**Agenda**

- 1) Kickoff – Brom Stibitz, Chief Deputy Director
- 2) Why you are here – Jean Ingersoll, Interim Chief of Staff
- 3) What you need to do (February 22, 2016 deadline) – Jean
- 4) What will be done for you – Jean
- 5) What's next – Jean
- 6) Public Information Reminder – Caleb Buhs, Public Information Officer
- 7) Questions and Answers - Group

**SOM Meeting Contact:**

Janelle Longanbach

[LonganbachJ@michigan.gov](mailto:LonganbachJ@michigan.gov)

Office: 517-373-4210

**Participants:**

David Behen  
Chanda Donnan  
Caleb Buhs  
Rodney Davenport  
Ashley Gelisse  
Michael Gilliland  
Natalie Spaniolo  
Lacy Wilke  
Marsha Stansfield  
Denice Ballard  
Trisha Hampton  
Greg DeCamp  
Jennifer Gibson  
Dane Hengesbach  
Jean Ingersoll  
Phillip Jeffery  
Brandon Philip  
Christian Kopacsi  
Jeanette Doll  
Ryan McKee  
Jeff Pratt  
Kathy Knapp  
Craig Bidelman  
Terry Bussema  
Rick Rokely  
Niki Tefft

Nicolle Schlegel  
Alexandrea Parker  
Elizabeth Keilen  
Vicki McPherson  
Chris Christensen  
Michelle Lawson  
Tom Nevai  
Carter Evans  
James Fick  
Robert McKee  
Blane Perry  
Eric Riddering  
Anthony Rodgers  
Larry Trial  
Kyleigh Thompson  
Tom Glomski  
Seth Seger  
Tim Lee  
Tyler Sikkema  
Kelly Manning  
James McFarlane  
Tiziana Galeazzi  
Rajiv Das  
Linda Pung  
James Hogan  
Laurie Westfall  
Jason Palmer  
Brom Stibitz  
Pam Trakul  
Eric Swanson  
Laura Blastic  
Kristen Furseth  
Laura Brancheau  
Yvonne Sebok  
Richard Stankiewicz  
Jason Vera  
Jeremy Jehnsen  
Ken Jodway  
Jeremy Newman  
Anup Vijay  
Paul Harmon  
Everett Root  
Suzanne Pauley  
John Thompson  
Anne Nolan  
Rick Peterson  
Michelle Stiffler  
Sunit Patke  
James Foley  
John Estill  
Joe Seckelman  
Ellen Martin

Brian Aprill  
Josh Ross  
Joel Locke  
Steven Cross  
John Clark  
Tony Olkowski  
Scott Noldy  
John Baer  
Holly Dickinson  
Corey Post  
David Cantin  
Jeremy Brun  
Lisa Hartsuff  
Joni Kosloski  
Gerald Jordon  
Matthew Sweeney  
Michael Turnquist  
Dan Morgan  
Kerri Droste  
Keith Paasch  
Larry Scates  
Mike Noonan  
Brian Walts  
Ric Martin  
Robert Burns  
William Doxie  
Jim Clark  
Maureen Bailey  
Troy Bos  
Jamie Phillippo  
Troy Spitzley  
Marchan Darby  
Keith Hawes  
Seth Wright  
Carrie Rambo  
Shelly Millimaki  
Chris Nelson  
Chris Murphy  
Stephanie Clark  
Roy Cischke  
David Hofmeister  
Vince Reynolds  
Joyce Van Coevering  
Beth Ragla  
Gary Shaw  
Mike Wonn  
Kristi Thompson  
Thomas Goodine  
Mike Armstrong  
Jim Doyle  
Kristen Hampton  
Mark Miller

Tom Cooley  
Rex Waltersdorf  
Jerry Monroe  
Kristin Bergan  
William Banks  
Mike Dyson  
Dan Stiles  
Dan Chipman  
Steve Hodgman  
Todd Martin  
Jessie Weston  
Scott Fitton  
Brice Sample  
Kerrie Vanden Bosch  
Jeff Wellman  
Jeff Brownlee  
Sharon Maynard  
Heather Calahan  
Rebecca Cook  
Genevieve Hayes  
Jennifer Riehle  
Tom Falik  
Bill Pemble  
Melissa Sambiagio  
Sue Ciecwa  
Lymon Hunter  
Yvon Dufour  
Will Camp  
David Hatch  
Shelby Troub  
Stephanie Epps

<< File: All DTMB Custodians of Correspondence Related to Flint - UPDATED.pdf >>



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

DAVID B. BEHEN  
DIRECTOR

February 18, 2016

**TO:** All DTMB Custodians of Correspondence Related to Flint

**FROM:** Jean Ingersoll, Interim Chief of Staff to David B. Behen, Director and CIO

**SUBJECT:** Flint Document Production – Search Terms and Guidance

In recent months, the State of Michigan has received a number of requests to produce documents related to the water emergency in Flint. You have been identified as a potential custodian of relevant/responsive correspondence and/or documents related to these requests. **As a custodian, you are required to produce any documents containing the search terms listed below, no later than Monday, February 22, 2016.** This memorandum contains detailed instructions for the process of identifying, compiling, scanning, and copying the necessary information.

**Microsoft 365 – Outlook (includes emails, calendar items) and OneDrive**

DTMB staff will centrally coordinate the Microsoft 365 search for all of DTMB's custodians. Therefore, DTMB's custodians *do not need to independently search any of their Microsoft 365 applications* for the search terms listed below.

**Network Drives**

Similar to the approach outlined above, DTMB staff will centrally coordinate the network drive search effort for all DTMB custodians. Custodians *do not* need to independently conduct a network drive search for the search terms below.

**Non-Network Drives – includes hard drives, desktop, and thumb/flash drives**

For all non-network drive types, ***each custodian will need to search every search term listed below in every non-network format, and move all relevant/related documents in to a network drive for collection. In order to move items to the network, you must be connected to the network.***

Start by conducting the search of all non-network drives, filling out the attached search term checklist as you go. If you need guidance as to how to perform this search, a step-by-step guide is included below in Appendix 1.

All relevant/responsive items that are produced as a result of your search need to be moved to a network drive. You can move your relevant/related documents to a network drive in whatever format the document is currently in. After the February 22, 2016, deadline, DTMB staff will access the network drives to collect the files.

### **Paper Files**

Review all applicable paper files. Scan any relevant/related documents, and save them to a network drive, as described above. If this is not possible, you may provide hard copies of documents to Jean Ingersoll in the Director's Office. These documents must be received in the Director's Office by February 22, 2016, and will not be returned to you.

### **Home Computer**

Any relevant e-mails or other documents on a personal computer also are subject to this request. Please check your personal computer for any e-mails or other documents relating to this search. If you discover any relevant/related documents, please include the phrase "personal computer" in the file name, and save them to the aforementioned network drive.

### **Conclusion**

Thank you for your cooperation in complying with this request. Should you have any questions, please contact Jean Ingersoll at 1-8844.

### **Attachments**

- FOIA Checklist
- Attachment 1 – Search Guidance

## Search Term Checklist

In recent months, the State of Michigan has received a number of requests to produce documents related to the water emergency in Flint. You have been identified as a potential custodian of relevant/responsive correspondence and/or documents related to these requests. As a custodian, you are required to search and copy all items that you identify to a DTMB network drive, as described above.

Please complete your search no later than close of business on Monday, February 22, 2016. Relevant/related items from the past 10 years should be included.

You should search for *each term exactly as it is shown below, and include quotation marks around each separate word*. For example, "Legionnaire", "Legionella", or "Flint" would all go into search fields. After you complete a search term, check the box beside the term.

### Search Terms:

- |                                                       |                                                      |                                            |
|-------------------------------------------------------|------------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> "Legionnaire"                | <input type="checkbox"/> "Karegnondi"                | <input type="checkbox"/> "Pb" & "water"    |
| <input type="checkbox"/> "Legionella"                 | <input type="checkbox"/> "Genesee County Health      | <input type="checkbox"/> "KWA"             |
| <input type="checkbox"/> "boil water order" & "Flint" | Department"                                          | <input type="checkbox"/> "Flint" & "water" |
| <input type="checkbox"/> "coli" & "Flint"             | <input type="checkbox"/> "Flint" & "utilities"       |                                            |
| <input type="checkbox"/> "bacteria" & "Flint"         | <input type="checkbox"/> "Lead and Copper Rule"      |                                            |
| <input type="checkbox"/> "microb" & "Flint"           | <input type="checkbox"/> "Detroit Water and Sewerage |                                            |
| <input type="checkbox"/> "TTHM" & "Flint"             | Department" & "Flint"                                |                                            |
| <input type="checkbox"/> "Lead" & "Flint"             | <input type="checkbox"/> "DWSD" & "Flint"            |                                            |
| <input type="checkbox"/> "emergency" & "Flint"        | <input type="checkbox"/> "Flint River"               |                                            |

Search conducted on the email account of: \_\_\_\_\_

By (your name): \_\_\_\_\_

Date completed: \_\_\_\_\_

Please return this completed Checklist to DTMB Director's Office staff by  
Monday, February 22, 2016, at  
[DTMB@michigan.gov](mailto:DTMB@michigan.gov), or  
Directors Office, Cass Building, Second Floor



## APPENDIX 1 – Search Guidance

Regardless of what version of Windows you're using, each of them has a search feature built in called "Windows Explorer," you see it every time you open up a folder on a network drive, or on your own computer.

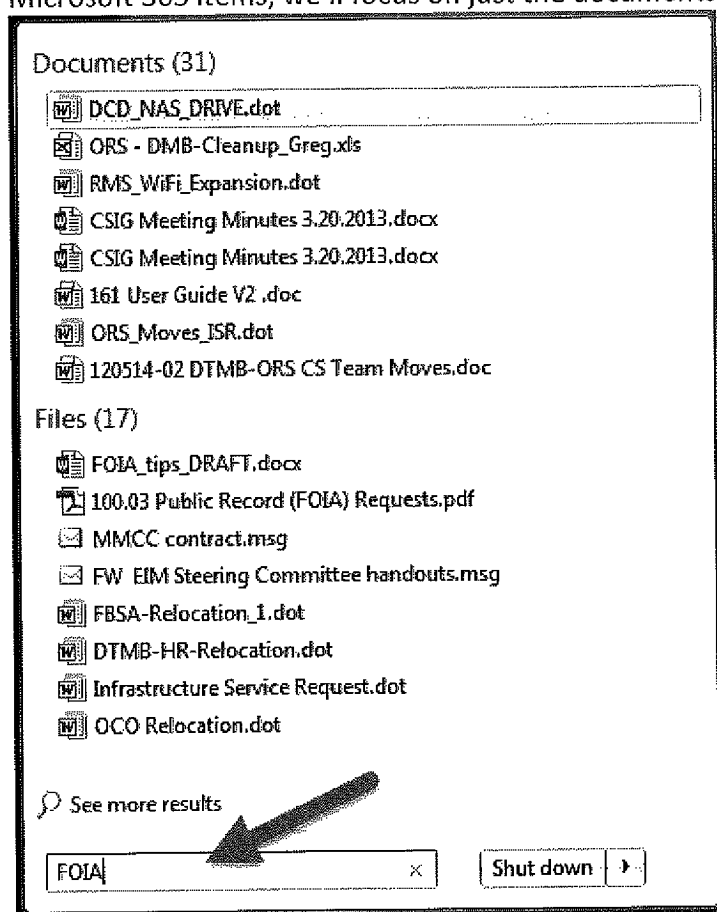
### Using the search function in windows 7

Since the majority of DTMB is on Windows 7, the examples below are on that operating system. If you click on windows Start button, you'll see the search box right next to it

► All Programs

Search programs and files

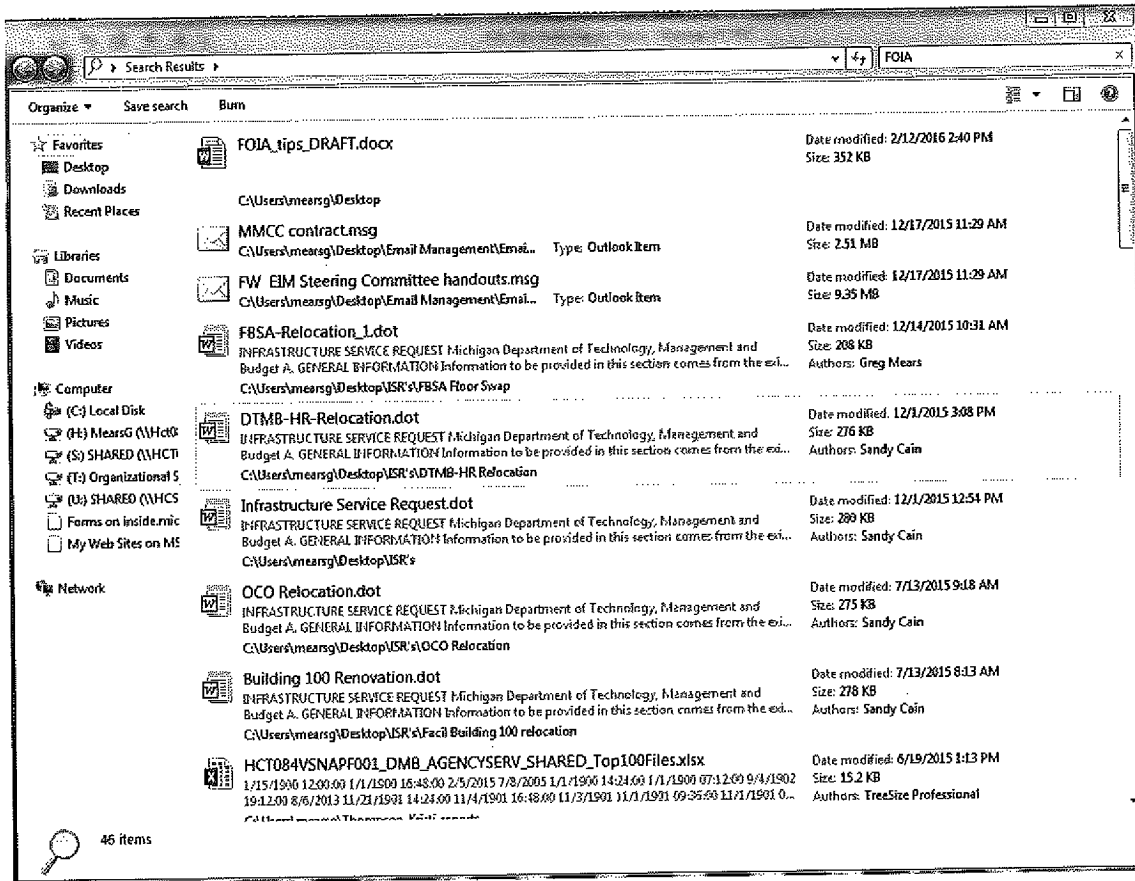
This example searches for the word FOIA. As you can see, the search yielded numerous documents including emails. Since DTMB is centrally collecting relevant emails and other Microsoft 365 items, we'll focus on just the documents.



You need to open each document to make sure that it's relevant. In this instance, the search brought up a DTMB Move form, but only because it has the word FOIA in the form.

You'll notice that the words "See more results" appears at the bottom of the list. This means that the search turned up a lot more documents than what can easily be displayed. You must

click on the link to open Windows Explorer and reveal a comprehensive list, along with their locations.



As you can see from this example the search found 46 items. We can now select them all using the "Ctrl-A method", and copy them to a network drive.

---

**Subject:** Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint  
**Location:** Ottawa Building - Upper Level – Conference Room 4 OR Call-in: 866-390-1828 access code: 1842654

**Start:** Thu 2/18/2016 2:00 PM  
**End:** Thu 2/18/2016 3:00 PM

**Recurrence:** (none)

**Meeting Status:** Accepted

**Organizer:** DTMB-Directors-Office  
**Required Attendees:** Behen, David (DTMB); Donnan, Chanda (DTMB); Buhs, Caleb (DTMB); Davenport, Rodney (DTMB); Gelisse, Ashley (DTMB); Gilliland, Michael (DTMB); Spaniolo, Natalie (DTMB); Wilke, Lacey (DTMB); Stansfield, Marsha (DTMB); Ballard, Denice (DTMB); Hampton, Trisha (DTMB); DeCamp, Greg (DTMB); Gibson, Jennifer (DTMB); Hengesbach, Dane (DTMB); Ingersoll, Jean (DTMB); Jeffery, Phillip (DTMB); Philip, Brandon (DTMB); Kopacsi, Christian (DTMB); Doll, Jeanette (DTMB); McKee, Ryan (DTMB); Pratt, Jeff (DTMB); Knapp, Kathy (DTMB); Bidelman, Craig (DTMB); Bussema, Terry (DTMB); Rokely, Rick (DTMB); Tefft, Niki (DTMB); Schlegel, Nicolle (DTMB); Parker, Alexandra (DTMB); Keilen, Elizabeth (DTMB); McPherson, Victoria (DTMB); Christensen, Chris (DTMB); Lawson, Michelle (DTMB); Nevai, Tom (DTMB); Evans, Carter (DTMB); Fick, James (DTMB); McKee, Robert (DTMB); Perry, Blane (DTMB); Riddering, Eric (DTMB); Rodgers, Anthony (DTMB); Trial, Larry (DTMB); Thompson, Kyleigh (DTMB); Glomski, Tom (DTMB); Seger, Seth (DTMB); Lee, Timothy (DTMB); Sikkema, Tyler (DTMB); Manning, Kelly (DTMB); McFarlane, James (DTMB); Galeazzi, Tiziana (DTMB); Das, Rajiv (DTMB); Pung, Linda (DTMB); Hogan, James (DTMB); Westfall, Laurie (DTMB); Palmer, Jason (DTMB); Stibitz, Brom (DTMB); Trakul, Pamela (DTMB); Swanson, Eric (DTMB); Blastis, Laura (DTMB); Furseth, Kristen (DTMB); Brancheau, Laura (DTMB); Sebok, Yvonne (DTMB); Stankiewicz, Richard (DTMB); Vera, Jason (DTMB); Jehnsen, Jeremy W (DTMB); Jodway, Kenneth (DTMB); Newman, Jeremy (DTMB); Vijayaveeraraghavan, Anupkumar (DTMB); Harmon, Paul (DTMB); Root, Everett (DTMB); Pauley, Suzanne (DTMB); Thompson, John (DTMB); Nolan, Anne (DTMB); Peterson, Rick (DTMB); Stiffler, Michelle (DTMB); Patke, Sunit (DTMB); Estill, John (DTMB); Seckelman, Joe (DTMB); Martin, Ellen (DTMB); Aprill, Brian (DTMB); Ross, Josh (DTMB); Locke, Joel (DTMB); Cross, Steven (DTMB); Clark, John (DTMB); Olkowski, Tony (DTMB); Noldy, Scott (DTMB); Baer, John (DTMB); Dickinson, Holly (DTMB); Post, Corey (DTMB); Cantin, David (DTMB); Brun, Jeremy (DTMB); Hartsuff, Lisa (DTMB); Kosloski, Joni (DTMB); Jordan, Gerald (DTMB); Sweeney, Matthew (DTMB); Turnquist, Michael (DTMB); Morgan, Dan (DTMB); Droste, Kerri (DTMB); Paasch, Keith (DTMB); Scates, Larry (DTMB); Noonan, Michael (DTMB); Walts, Brian (DTMB); Martin, Ric (DTMB); Burns, Robert (DTMB); Doxie, William (DTMB); Clark, Jim (DTMB); Bailey, Maureen (DTMB); Bos, Troy (DTMB); Phillippo, Jamie (DTMB); Spitzley, Troy (DTMB); Darby, Marchan (DTMB); Hawes, Keith (DTMB); Wright, Seth (DTMB); Rambo, Carolyn (DTMB); Millimaki, Shelly (DTMB); Nelson, Christopher (DTMB); Murphy, Chris (DTMB); Clark, Stephanie (DTMB); Cischke, Roy (DTMB); Hofmeister, David (DTMB); Reynolds, Vince (DTMB); VanCoeverying, Joyce (DTMB); Ragla, Beth (DTMB); Shaw, Gary (DTMB); Wonn, Michael (DTMB); Thompson, Kristi (DTMB); Goodine, Tom (DTMB); Armstrong,

**Required Attendees:**

Mike (DTMB); Doyle, James (DTMB); Hampton, Kristen (DTMB); Miller, Mark (DTMB); Cooley, Tom (DTMB); Waltersdorf, Rex (DTMB); Monroe, Jerry (DTMB); Bergan, Kristin (DTMB); Banks, William (DTMB); Dyson, Mike (DTMB); Stiles, Dan (DTMB); Chipman, Dan (DTMB); Hodgman, Steve (DTMB); Martin, Todd (DTMB); Weston, Jessica (DTMB); Fitton, Scott (DTMB); Sample, Brice (DTMB); Vanden Bosch, Kerrie (DTMB); Wellman, Jeff (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Calahan, Heather (DTMB); Cook, Rebecca (DTMB); Hayes, Genevieve (DTMB); Riehle, Jenni (DTMB); Falik, Tom A. (DTMB); Pemble, William (DTMB); Sambiagio, Melissa (DTMB); Ciecowa, Sue (DTMB); Hunter, Lymon (DTMB); Dufour, Yvon (DTMB); Camp, William (DTMB); Hatch, David (DTMB); Troub, Shelby (DTMB); Epps, Stephanie (DTMB); Herman, Christyn (DTMB); Bliss, Mike (DTMB); Guardiola, Jamie (DTMB); 'jfoley@us.ibm.com'

**Optional Attendees:**

Stanaway, Deb (DTMB); Huhn, Jacqueline (DTMB); McQuaid, John (DTMB); Reasner, Richard (DTMB); Rakowski, Rock (DTMB); Gonzalez, Tonyia (DTMB); Doerr, Stephen (DTMB); Isaacs, Jan (DTMB)

Please note this meeting can be attended in person or via conference call-in. Location and Dial in information are provided below.

All DTMB Custodians of Correspondence Related to Flint.pdf

\*This attachment was updated 2/18/16

\*See agenda below

Requested By:

DTMB Executive Staff

Location:

Ottawa Building

Upper Level – Conference Room 4

611 W. Ottawa Street

Lansing, MI 48933

Call-in: 866-390-1828

Access code: 1842654

Security:

Please have your State Employee ID showing at all times.

Parking:

Metered parking is available along Ottawa and Pine street.

Briefing:

In recent months, the State of Michigan has received a number of requests to produce documents related to the water emergency in Flint. You have been identified as a potential custodian of relevant/responsive correspondence and/or documents related to these requests. As a custodian, you are required to produce, by a certain date, any documents containing certain search terms. In this meeting we will review instructions for the process of identifying, compiling, scanning, and copying the necessary information.

## Agenda

Kickoff – Brom Stibitz, Chief Deputy Director

Why you are here – Jean Ingersoll, Interim Chief of Staff

What you need to do (February 22, 2016 deadline) – Jean

What will be done for you – Jean

What's next – Jean

Public Information Reminder – Caleb Buhs, Public Information Officer

Questions and Answers - Group

## SOM Meeting Contact:

Janelle Longanbach

[LonganbachJ@michigan.gov](mailto:LonganbachJ@michigan.gov)

Office: 517-373-4210

## Participants:

David Behen

Chanda Donnan

Caleb Buhs

Rodney Davenport

Ashley Gelisse

Michael Gilliland

Natalie Spaniolo

Lacy Wilke

Marsha Stansfield

Denice Ballard

Trisha Hampton

Greg DeCamp

Jennifer Gibson

Dane Hengesbach

Jean Ingersoll

Phillip Jeffery

Brandon Philip

Christian Kopacsi

Jeanette Doll

Ryan McKee

Jeff Pratt

Kathy Knapp

Craig Bidelman

Terry Bussema

Rick Rokely

Niki Tefft

Nicolle Schlegel

Alexandrea Parker

Elizabeth Keilen

Vicki McPherson

Chris Christensen

Michelle Lawson

Tom Nevai

Carter Evans

James Fick

Robert McKee

Blane Perry

Eric Riddering  
Anthony Rodgers  
Larry Trial  
Kyleigh Thompson  
Tom Glomski  
Seth Seger  
Tim Lee  
Tyler Sikkema  
Kelly Manning  
James McFarlane  
Tiziana Galeazzi  
Rajiv Das  
Linda Pung  
James Hogan  
Laurie Westfall  
Jason Palmer  
Brom Stibitz  
Pam Trakul  
Eric Swanson  
Laura Blastic  
Kristen Furseth  
Laura Brancheau  
Yvonne Sebok  
Richard Stankiewicz  
Jason Vera  
Jeremy Jehnsen  
Ken Jodway  
Jeremy Newman  
Anup Vijay  
Paul Harmon  
Everett Root  
Suzanne Pauley  
John Thompson  
Anne Nolan  
Rick Peterson  
Michelle Stiffler  
Sunit Patke  
James Foley  
John Estill  
Joe Seckelman  
Ellen Martin  
Brian Aprill  
Josh Ross  
Joel Locke  
Steven Cross  
John Clark  
Tony Olkowski  
Scott Noldy  
John Baer  
Holly Dickinson  
Corey Post  
David Cantin

Jeremy Brun  
Lisa Hartsuff  
Joni Kosloski  
Gerald Jordon  
Matthew Sweeney  
Michael Turnquist  
Dan Morgan  
Kerri Droste  
Keith Paasch  
Larry Scates  
Mike Noonan  
Brian Walts  
Ric Martin  
Robert Burns  
William Doxie  
Jim Clark  
Maureen Bailey  
Troy Bos  
Jamie Phillippo  
Troy Spitzley  
Marchan Darby  
Keith Hawes  
Seth Wright  
Carrie Rambo  
Shelly Millimaki  
Chris Nelson  
Chris Murphy  
Stephanie Clark  
Roy Cischke  
David Hofmeister  
Vince Reynolds  
Joyce Van Coevering  
Beth Ragla  
Gary Shaw  
Mike Wonn  
Kristi Thompson  
Thomas Goodine  
Mike Armstrong  
Jim Doyle  
Kristen Hampton  
Mark Miller  
Tom Cooley  
Rex Waltersdorf  
Jerry Monroe  
Kristin Bergan  
William Banks  
Mike Dyson  
Dan Stiles  
Dan Chipman  
Steve Hodgman  
Todd Martin  
Jessie Weston

Scott Fitton  
Brice Sample  
Kerrie Vanden Bosch  
Jeff Wellman  
Jeff Brownlee  
Sharon Maynard  
Heather Calahan  
Rebecca Cook  
Genevieve Hayes  
Jennifer Riehle  
Tom Falik  
Bill Pemble  
Melissa Sambiagio  
Sue Ciecwa  
Lymon Hunter  
Yvon Dufour  
Will Camp  
David Hatch  
Shelby Troub  
Stephanie Epps  
All DTMB Custodians of Correspondence Related to Flint - UPDATED.pdf



All DTMB



All DTMB

Custodians of Co... Custodians of Co...





RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

DAVID B. BEHEN  
DIRECTOR

February 17, 2016

**TO:** All DTMB Custodians of Correspondence Related to Flint

**FROM:** Jean Ingersoll, Interim Chief of Staff to David B. Behen, Director and CIO

**SUBJECT:** Flint Document Production – Search Terms and Guidance

In recent months, the State of Michigan has received a number of requests to produce documents related to the water emergency in Flint. You have been identified as a potential custodian of relevant/responsive correspondence and/or documents related to these requests. **As a custodian, you are required to produce any documents containing the search terms listed below, no later than Monday, February 22, 2016.** This memorandum contains detailed instructions for the process of identifying, compiling, scanning, and copying the necessary information.

**Microsoft 365 – Outlook (includes emails, calendar items) and OneDrive**

DTMB staff will centrally coordinate the Microsoft 365 search for all of DTMB's custodians. Therefore, DTMB's custodians *do not need to independently search any of their Microsoft 365 applications* for the search terms listed below.

**Network Drives**

Similar to the approach outlined above, DTMB staff will centrally coordinate the network drive search effort for all DTMB custodians. Custodians *do not* need to independently conduct a network drive search for the search terms below.

**Non-Network Drives – includes hard drives, desktop, and thumb/flash drives**

For all non-network drive types, ***each custodian will need to search every search term listed below in every non-network format, and move all relevant/related documents in to a network drive for collection. In order to move items to the network, you must be connected to the network.***

Start by conducting the search of all non-network drives, filling out the attached search term checklist as you go. If you need guidance as to how to perform this search, a step-by-step guide is included below in Appendix 1.

All relevant/responsive items that are produced as a result of your search need to be moved to a network drive. You can move your relevant/related documents to a network drive in whatever format the document is currently in. After the February 22, 2016, deadline, DTMB staff will access the network drives to collect the files.

### **Paper Files**

Review all applicable paper files. Scan any relevant/related documents, and save them to a network drive, as described above. If this is not possible, you may provide hard copies of documents to Jean Ingersoll in the Director's Office. These documents must be received in the Director's Office by February 22, 2016, and will not be returned to you.

### **Home Computer**

Any relevant e-mails or other documents on a personal computer also are subject to this request. Please check your personal computer for any e-mails or other documents relating to this search. If you discover any relevant/related documents, please include the phrase "personal computer" in the file name, and save them to the aforementioned network drive.

### **Conclusion**

Thank you for your cooperation in complying with this request. Should you have any questions, please contact Jean Ingersoll at 1-8844.

### **Attachments**

- FOIA Checklist
- Attachment 1 – Search Guidance

## Search Term Checklist

In recent months, the State of Michigan has received a number of requests to produce documents related to the water emergency in Flint. You have been identified as a potential custodian of relevant/responsive correspondence and/or documents related to these requests. As a custodian, you are required to search and copy all items that you identify to a DTMB network drive, as described above.

Please complete your search no later than close of business on Monday, February 22, 2016. Relevant/related items from the past 10 years should be included.

You should search for *each term exactly as it is shown below, and include quotation marks around each separate word*. For example, "Legionnaire", "Legionella", or "Flint" would all go into search fields. After you complete a search term, check the box beside the term.

### Search Terms:

- |                                                       |                                                      |                                         |
|-------------------------------------------------------|------------------------------------------------------|-----------------------------------------|
| <input type="checkbox"/> "Legionnaire"                | <input type="checkbox"/> "Karegnondi"                | <input type="checkbox"/> "Pb" & "water" |
| <input type="checkbox"/> "Legionella"                 | <input type="checkbox"/> "Genesee County Health      | <input type="checkbox"/> "KWA"          |
| <input type="checkbox"/> "boil water order" & "Flint" | Department"                                          |                                         |
| <input type="checkbox"/> "coli" & "Flint"             | <input type="checkbox"/> "Flint" & "utilities"       |                                         |
| <input type="checkbox"/> "bacteria" & "Flint"         | <input type="checkbox"/> "Lead and Copper Rule"      |                                         |
| <input type="checkbox"/> "microb" & "Flint"           | <input type="checkbox"/> "Detroit Water and Sewerage |                                         |
| <input type="checkbox"/> "TTHM" & "Flint"             | Department" & "Flint"                                |                                         |
| <input type="checkbox"/> "Lead" & "Flint"             | <input type="checkbox"/> "DWSD" & "Flint"            |                                         |
| <input type="checkbox"/> "emergency" & "Flint"        | <input type="checkbox"/> "Flint River"               |                                         |

Search conducted on the email account of: \_\_\_\_\_

By (your name): \_\_\_\_\_

Date completed: \_\_\_\_\_

Please return this completed Checklist to DTMB Director's Office staff by February 22, 2016, at  
[DTMB@michigan.gov](mailto:DTMB@michigan.gov), or  
Directors Office, Cass Building, Second Floor

## APPENDIX 1 – Search Guidance

Regardless of what version of Windows you're using, each of them has a search feature built in called "Windows Explorer," you see it every time you open up a folder on a network drive, or on your own computer.

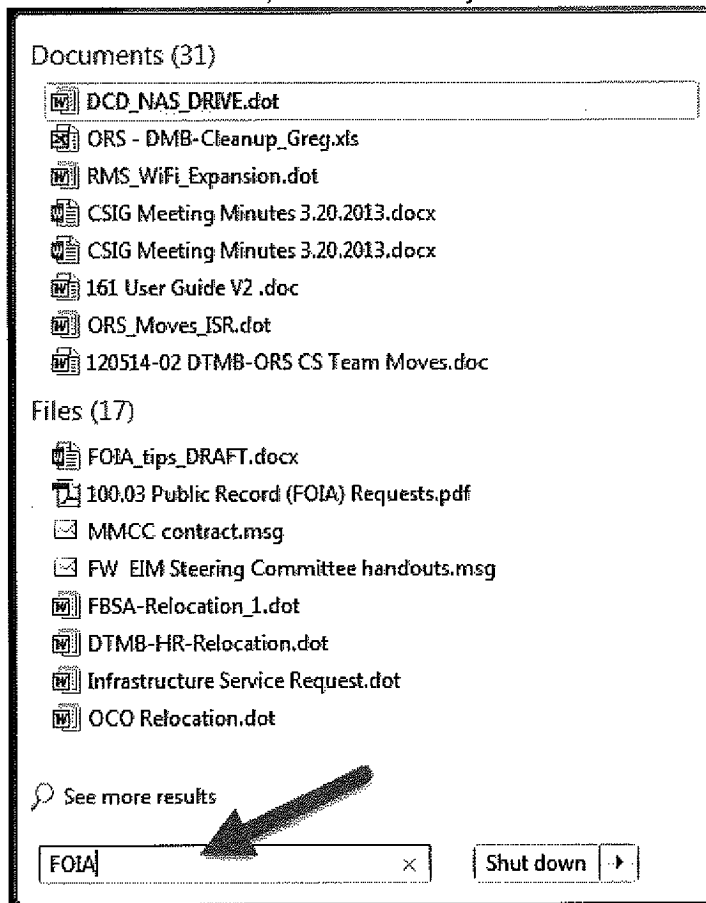
### Using the search function in windows 7

Since the majority of DTMB is on Windows 7, the examples below are on that operating system. If you click on windows Start button, you'll see the search box right next to it

► All Programs

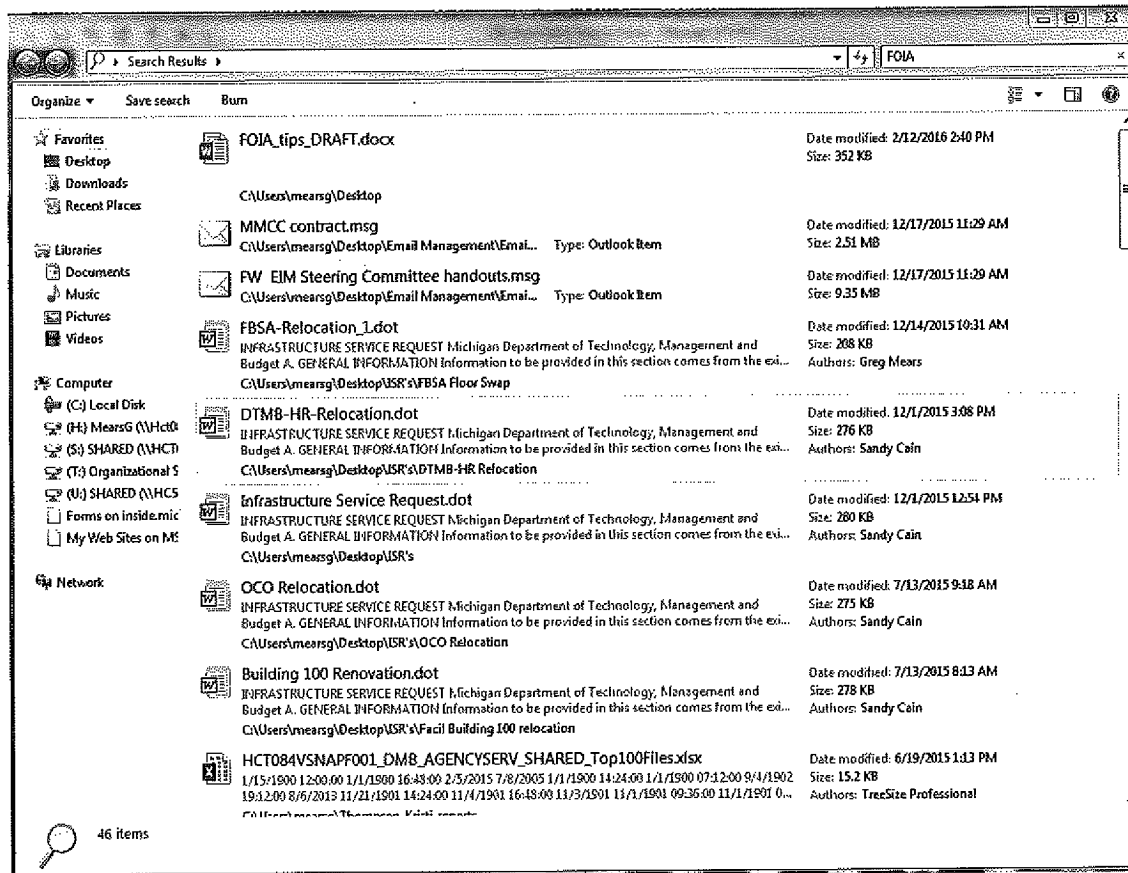
Search programs and files

This example searches for the word FOIA. As you can see, the search yielded numerous documents including emails. Since DTMB is centrally collecting relevant emails and other Microsoft 365 items, we'll focus on just the documents.



You need to open each document to make sure that it's relevant. In this instance, the search brought up a DTMB Move form, but only because it has the word FOIA in the form. You'll notice that the words "See more results" appears at the bottom of the list. This means that the search turned up a lot more documents than what can easily be displayed. You must

click on the link to open Windows Explorer and reveal a comprehensive list, along with their locations.



As you can see from this example the search found 46 items. We can now select them all using the "Ctrl-A method", and copy them to a network drive.



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

DAVID B. BEHEN  
DIRECTOR

February 18, 2016

**TO:** All DTMB Custodians of Correspondence Related to Flint

**FROM:** Jean Ingersoll, Interim Chief of Staff to David B. Behen, Director and CIO

**SUBJECT:** Flint Document Production – Search Terms and Guidance

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Monday, February 22, 2016, at  
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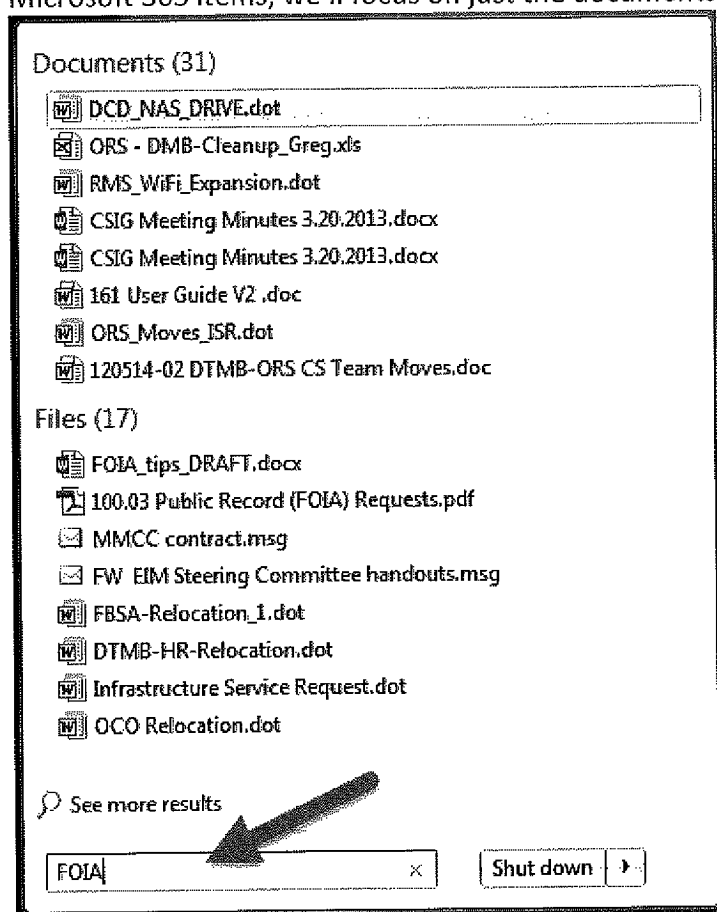
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Search programs and files

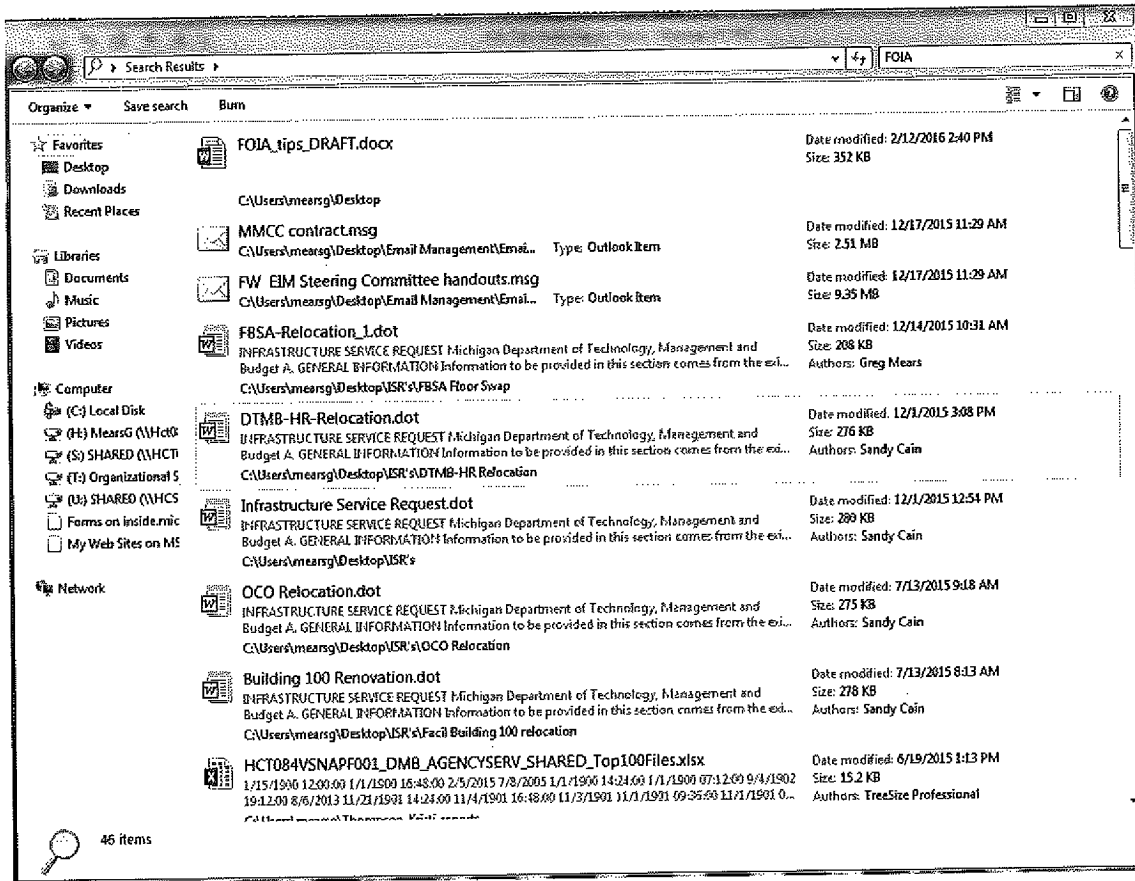
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---

**From:** Rokely, Rick (DTMB)  
**Sent:** Tuesday, January 19, 2016 3:01 PM  
**To:** Parker, Alexandra (DTMB); Rokely, Rick (DTMB)  
**Subject:** Conversation with Alexandra Parker

Rokely, Rick (DTMB) 2:51 PM:

There are potentially some overtime opportunities coming up soon within OIP due to the Flint crisis. I volunteered to help if there is a need and if my schedule fits too

Alexandrea Parker 2:51 PM:

sounds good, will they actually pay you?

or do you just get "free time"

Rokely, Rick (DTMB) 2:51 PM:

I think Chris said he will be sending an email out to OIP staff to see if there is anyone that can be available

I heard it from both Brandon and Chris that they would fill out the required form to give actual overtime pay

Alexandrea Parker 2:52 PM:

oh that would be great. yeah i would like to get in on it if we get it offered too. we shall seeeeee

Rokely, Rick (DTMB) 2:53 PM:

Yeah i hope anyone can volunteer. He made it sound like the request would go out anyone to see who is available

Alexandrea Parker 2:53 PM:

right right.

well we'll see, i wonder what they need done

Rokely, Rick (DTMB) 2:56 PM:

From the sound of it, i could be anything. Jeff has been at the JOC on and off for the last four days doing things here and there. He also had to round up another 31 ipads to get them to Flint because there was a need. Chris has been running to local stores and buying mass quantities of water to send too

Alexandrea Parker 2:58 PM:

wow interesting

---

**From:** State of Michigan <MISOM@govsubscriptions.michigan.gov>  
**Sent:** Thursday, January 14, 2016 5:30 PM  
**To:** Rokely, Rick (DTMB)  
**Subject:** Volunteer Opportunity in Flint



Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.  
Michigan State Employees banner image

The State Emergency Operations Center (SEOC) is coordinating a response to the ongoing health and safety issues in the city of Flint's drinking water. Teams from the Michigan State Police, Genesee County Sheriff's Department, Michigan Department of Health and Human Services, and volunteer organizations have been delivering bottled water, water filters, replacement cartridges and water testing kits at homes in the city of Flint since Tuesday.

To help with this critical work, the SEOC is looking for volunteers to expand this effort and continue this distribution during the upcoming holiday weekend. Teams are being assembled for shifts on Saturday, January 16; Sunday, January 17; and Monday, January 18, 2016. If you are interested in volunteering your time for this critical work, please complete the information in one of the attached surveys (depending on which day you are volunteering).

To volunteer on Saturday, January 16, <https://www.surveymonkey.com/r/28NVJBL>

To volunteer on Sunday, January 17, <https://www.surveymonkey.com/r/26NMJJK>

To volunteer on Monday, January 18, <https://www.surveymonkey.com/r/26P7P5G>

Volunteers will begin their assignment at the Local Emergency Operations Center located in the Genesee County Administration Building located at 1101 Beach St, Flint at 9 a.m. and end by 4 p.m. Parking is available at the corner of Beach Street and 8th Street. Lunch will be provided. This is strictly a volunteer effort, as all three days will be unpaid. Volunteers are responsible for their own transportation; mileage reimbursement for personal vehicles is not authorized. Volunteers should dress for working outdoors and wear foot attire appropriate for walking.

This opportunity is for state employees and their immediate family members 16 years of age or older only, others looking to assist should volunteer through the American Red Cross in Flint. The volunteer coordination center for the Red Cross is located at 1401 S. Grand Traverse, Flint, MI. They are open from 9 a.m. to 7 p.m.

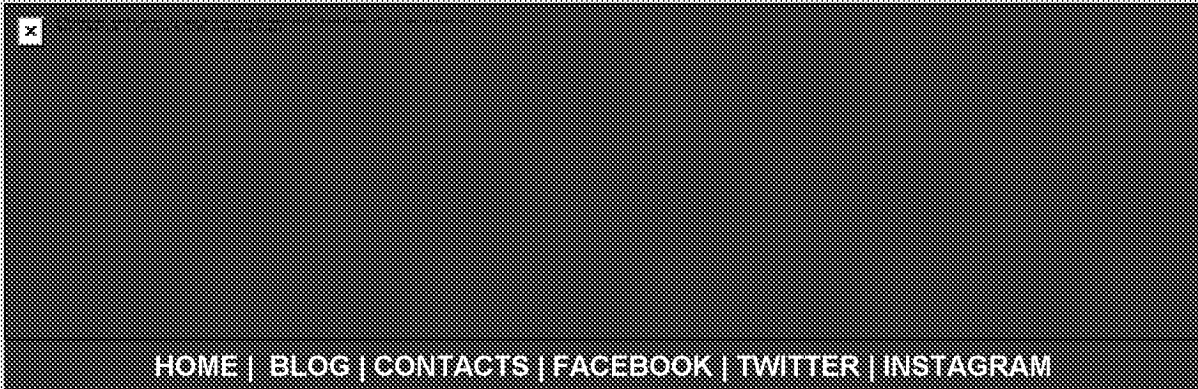
For more information on the state's response efforts, visit [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater).

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This e-mail was sent to [rokelyr1@michigan.gov](mailto:rokelyr1@michigan.gov) using GovDelivery on behalf of: the State of Michigan, 111 S.

Capitol Ave., Lansing, MI. *You are receiving this message because you are a State of Michigan employee.*

**From:** Governor's Office <governorsoffice@govsubscriptions.michigan.gov>  
**Sent:** Friday, January 22, 2016 12:59 PM  
**To:** Rokely, Rick (DTMB)  
**Subject:** "He's his own best spokesman"



## How we are fixing the Flint water crisis

Governor Rick Snyder has committed to spending the rest of his time as Governor to fixing the Flint water crisis. Over the last few days, he has sat down to explain what happened and how we're fixing the Flint water crisis. Watch the interviews below and be sure to read the Governor's Op-Ed in the USA Today.

### Governor Snyder on Morning Joe

"What is so frustrating and what makes you so angry is you have a handful of experts who were career civil servants that made terrible decisions, in my view. We have to live with the consequences, and they worked for me, so I accept that responsibility. We are going to fix this problem." Watch Governor Snyder address how we are fixing the Flint water crisis on Morning Joe.



### Governor Snyder with Charlie LeDuff on Fox 2 Detroit

"I feel awful about this. These are people. They've been harmed. You can't feel good about that. The people of Flint have been harmed and a major influence of that harm came from people who worked for me, and I feel responsible for that. But I am committed

to solving the problem and addressing the damage as much as possible for the rest of the time I'm Governor." Watch Governor Snyder address the Flint water crisis with Charlie LeDuff on Fox 2 News.



---

## Governor Snyder's 2016 State of the State

"Michiganders don't quit, we don't give up, instead we will work with even more passion and commitment to truly improve our state. For everyone who's chosen to make Michigan their home, this is more than a promise, this is my commitment." Watch Governor Snyder's full closing statement from his 2016 State of the State address.



---

## Governor in USA Today: "I will fix this, and I mean it."



"Residents in one of Michigan's proud cities cannot drink their water. That's unacceptable. The crisis in Flint arose from missteps at all levels of government — local, state and federal. But as governor, I take responsibility for what these families are going through, and I'm holding people in my administration accountable for their failures." Click [here](#) to read the Governor's full op-ed.

---

## Washington Post: "Michigan Gov. Rick Snyder is in a tough spot, but he's his own best spokesman"

Snyder has born the brunt of criticism in the local health crisis that has turned into a national scandal. But unlike many other politicians facing crises of leadership, Snyder may also be his own best counter-programming. [Click here to read the full story in the Washington Post.](#)



**Visit [HelpForFlint.com](http://HelpForFlint.com) to learn how you can help Flint residents.**

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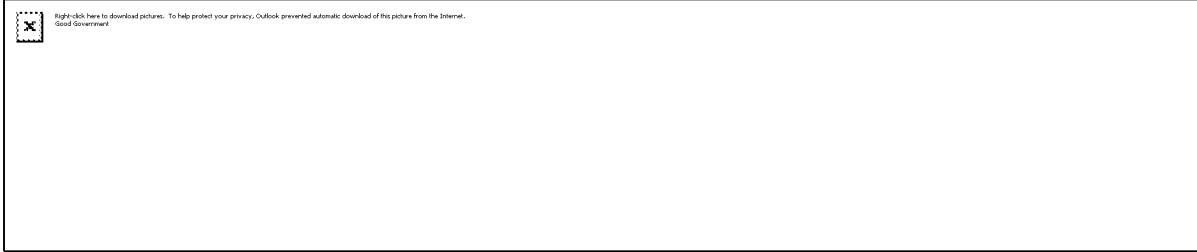
---

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**From:** State of Michigan <MISOM@govsubscriptions.michigan.gov>  
**Sent:** Friday, January 22, 2016 4:46 PM  
**To:** Rokely, Rick (DTMB)  
**Subject:** Flint Volunteer Efforts



Dear State Employees,

Gov. Rick Snyder and I want to thank everyone who donated their time during the holiday weekend to deliver bottled water, water filters, replacement cartridges and water testing kits to families in the city of Flint. We are working hard to ensure all residents are provided with the safe water resources they need, and each donation and hour of your time volunteered goes a long way.

For employees who would like to help the residents of Flint, there are several opportunities to do so. Please visit [www.helpforflint.com](http://www.helpforflint.com) to learn how you can help.

For additional information and updates, visit [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater).

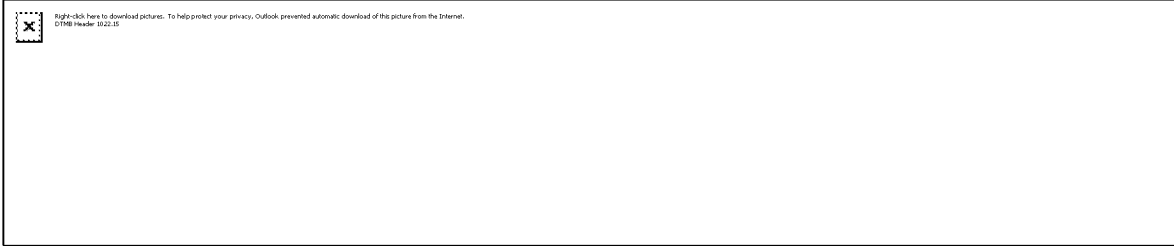
Again, thank you for all your support.

Sincerely, Mike Zimmer  
Office of Good Government Director  
Dept. of Licensing and Regulatory Affairs Director

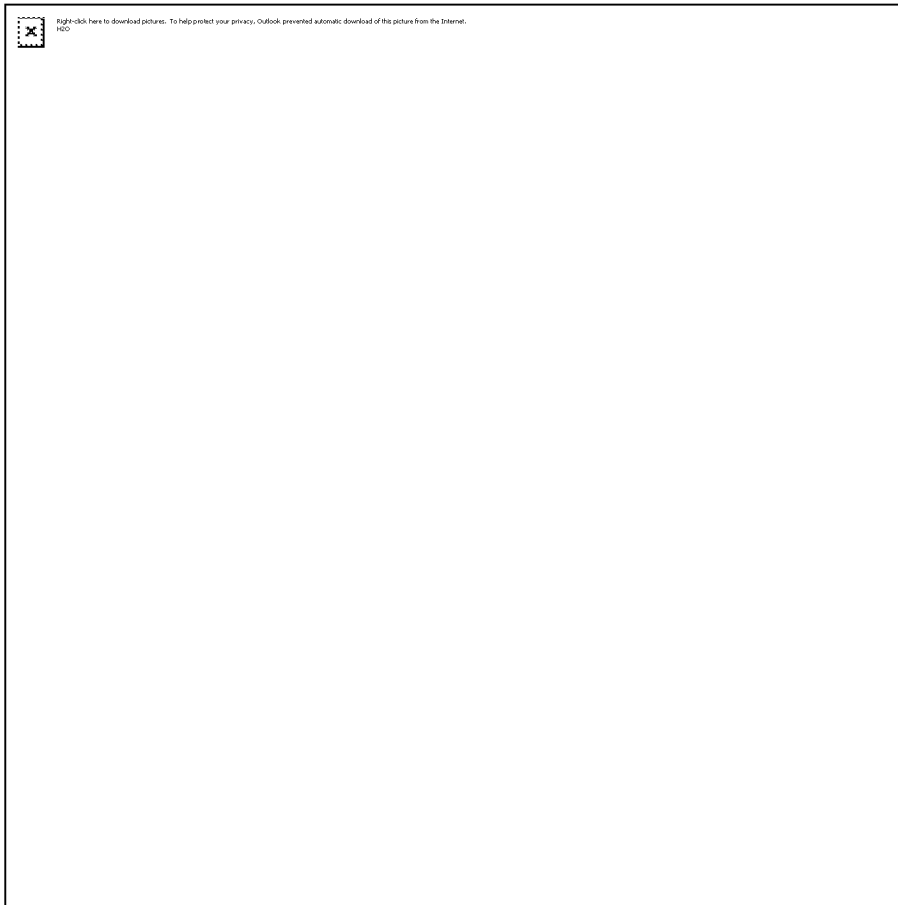
---

This e-mail was sent to [rokelyr1@michigan.gov](mailto:rokelyr1@michigan.gov) using GovDelivery on behalf of: the State of Michigan, 111 S. Capitol Ave., Lansing, MI. *You are receiving this message because you are a State of Michigan employee.*

**From:** Dept. Technology, Management & Budget <dtmb@govsubscriptions.michigan.gov>  
**Sent:** Tuesday, January 26, 2016 8:39 AM  
**To:** Rokely, Rick (DTMB)  
**Subject:** Contributing time, muscle and money



During this month's Martin Luther King Jr. holiday weekend, some state employees turned their "day off" into a "day on" in Flint. There, they delivered bottled water, water filters, replacement cartridges and water testing kits to families. The volunteers joined other Michiganders, turning Dr. King's birthday observance into a day of service.



Mike Zimmer, director of the Office of Good Government and the Department of Licensing and Regulatory Affairs, has shared a link – [www.helpforflint.com](http://www.helpforflint.com) – that offers other opportunities to contribute time, muscle and money to bring clean drinking water to the community. Here in DTMB, some of our employees didn't wait for an invitation to lend a hand. Office of Retirement Services staff contributed funds that were used to buy 31 cases and 23 gallons of water, which a local organization transported to Flint.

Autumn Hubbard, Ambrea Mack and Sarah Esquivel, who are in the photo at the left, nearly emptied the shelves at their local grocery store. Thanks for your efforts.

everyone.

Now work.

Last week, I signed a new policy that formalizes the annual employee review process and sets expectations for employees and managers. [Administrative Policy 200.37](#) establishes consistent standards for implementing performance plans and reviews. Some of the standards are practices we have followed for years. Others are new. Some of particular note include:

- The mandatory use of HRMN
- A standard Feb. 1-Jan. 31 rating period for all employees
- An Individual Development Plan that specifies training or development programs for each employee
- Competencies and objectives that align to DTMB goals or scorecard metrics
- Consequences for managers and supervisors who do not complete the review process as required

A fundamental role of each DTMB manager or supervisor is to provide employees with direction and feedback on their performance. Employees also are expected to take an active role in pursuing professional development opportunities and achieving their competencies and objectives. I encourage you to review the new policy and talk with your manager or supervisor if you have questions. Of course, I welcome your questions and input as well. Please send your comments and ideas to me at [behend@michigan.gov](mailto:behend@michigan.gov).

I know these have been busy weeks for many of you as you take on additional responsibilities and work hard to provide resources and services for our customers and citizens across the state. Please know that your hard work has not gone unnoticed. Thank you for everything you do, every day.

Have a great week,

David



---

The Department of Technology, Management and Budget

You are receiving this email because you are an employee of the Department of Technology, Management and Budget. If you have questions about your subscription, please contact [DTMB-Communications@michigan.gov](mailto:DTMB-Communications@michigan.gov).

---

This email was sent to [rekelyr1@michigan.gov](mailto:rekelyr1@michigan.gov) using GovDelivery, on behalf of DTMB · Lewis Cass Building · 520 South Walnut Street · Lansing, MI 48933 · 517-373-1004

**From:** Governor's Office <governorsoffice@govsubscriptions.michigan.gov>  
**Sent:** Friday, January 29, 2016 9:40 AM  
**To:** Rokely, Rick (DTMB)  
**Subject:** Thank you for your service



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## THANK YOU!

Fellow employees,

Each day, more than 46,000 state of Michigan employees come to work with the confidence and commitment to make Michigan a better place to live, work and play. I appreciate the way you care about the citizens we serve, and how it is reflected in the work that you do.

As you have heard from me and the media, our reputation and trust can be severely impacted when people do not make good decisions, or use good judgment in solving problems. That principle is universal, but never more so than when public health is at stake. What happened in Flint can never be allowed to happen again anywhere in our state.

I know that you want to work in a place where employee input is valued, efforts are recognized, and teams are always striving for continuous improvement. That's why we introduced employee surveys, Bureaucracy Busters and other reinvention initiatives. We want and deserve a culture of innovation, continuous improvement and employee engagement at every level. We can never take for granted how important the people are who depend on us to do our jobs, and I am asking you not to let the situation in Flint negatively impact your motivation to excel every day.

Many of you have taken an interest in helping the citizens of Flint on your own time, and I'd like to take this opportunity to recognize and thank those who have volunteered over the last couple of weekends. You have worked tirelessly to deliver cases of bottled water, water filters, replacement cartridges and water testing kits to the families in need. I appreciate you donating your time to help our fellow Michiganders. To date, more than 37,000 homes have been visited by one of our water resource teams.

For employees who would like to further help the people of Flint, please visit [www.HelpForFlint.com](http://www.HelpForFlint.com) to learn how you can do so. For additional information and to sign up for daily updates, please visit [www.mi.gov/FlintWater](http://www.mi.gov/FlintWater). I am committed to ensuring that all residents have access to safe and clean water.

Again, I'd like to express my gratitude for the work you do every day to continuously improve our state and earn the trust of those you serve. You make a real difference.

Thanks,

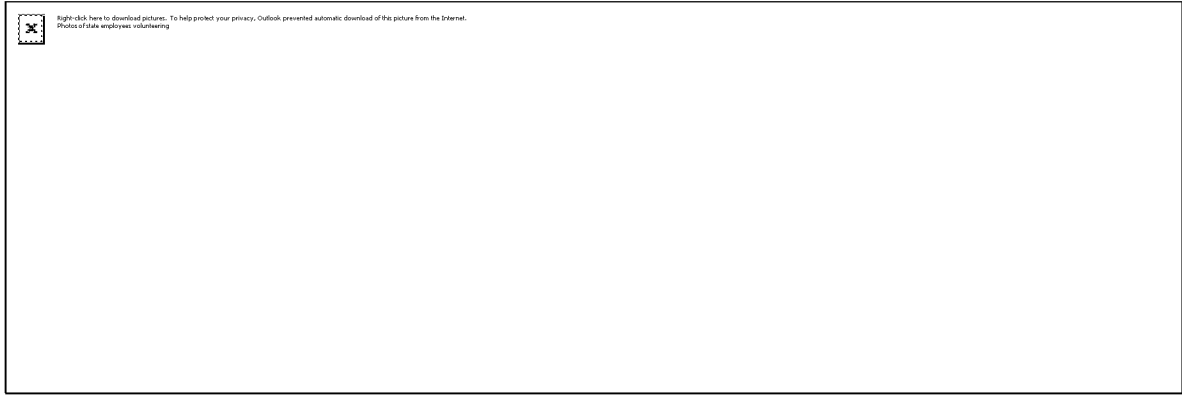


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Governor Rick Snyder

Governor Rick Snyder



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Photos of state employees volunteering



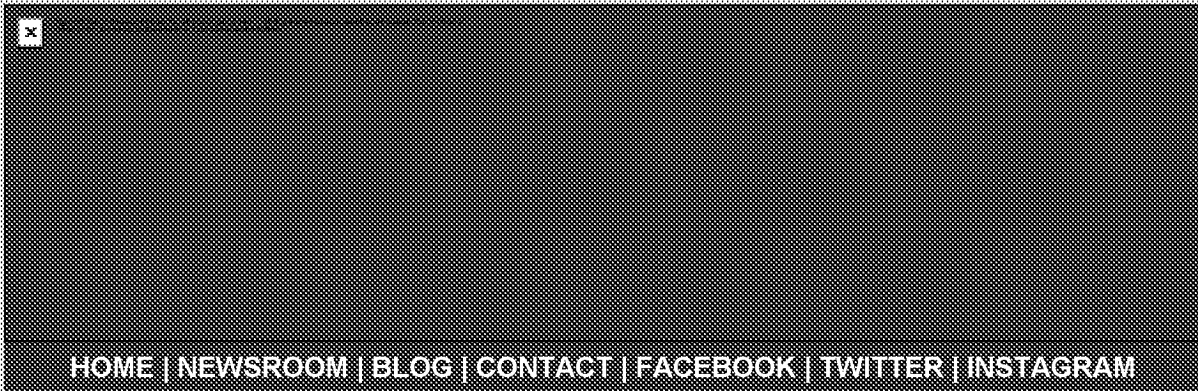
#### STAY CONNECTED:



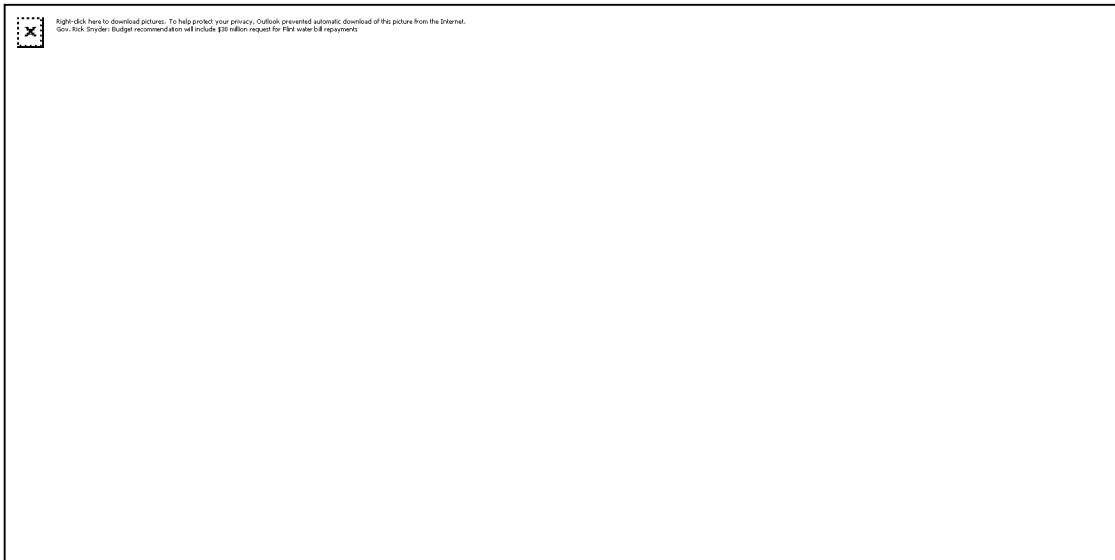
---

This email was sent to rokeiy1@michigan.gov on behalf of The Executive Office of the Governor · 111 South Capitol Avenue · Lansing, MI 48909 · 517-335-7858

**From:** Governor's Office <governorsoffice@govsubscriptions.michigan.gov>  
**Sent:** Wednesday, February 03, 2016 6:26 PM  
**To:** Rokely, Rick (DTMB)  
**Subject:** "Flint residents should not have to pay for water they cannot drink"



## Budget recommendation will include \$30 million request for Flint water bill repayments




When Governor Rick Snyder presents his budget recommendation next Wednesday, Feb. 10, he will include a \$30 million request for the residents of Flint to keep their water service on and eliminate the need to pay for water they cannot completely trust to drink.

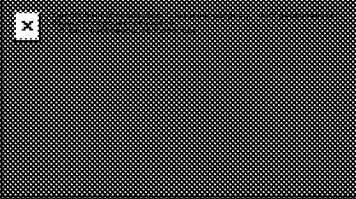
Under the governor's ask, the funding would enable the city of Flint to apply credits for customers on future bills. Estimates show water is roughly 47 percent of billing and sewer costs are around 53 percent. The credit would be applied to consumption usage (roughly

65 percent) of a resident's water portion of the bill, such as for bathing, drinking, cooking, and washing your hands. Residents still would be responsible for paying the sewer portion of their water bills.

Professor Marc Edwards of Virginia Tech said, "This essentially refunds all the money associated with consumption or consumer use. I think it's an amazing gesture of common sense and good will and it corrects an injustice. I don't think there's a precedent for this. I feel so encouraged by the direction this is going."

[Click here to learn more about the budget request.](#)

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[Learn more about the \\$30 million request](#)



We spoke with Staff Sgt. Thomas Vega about the critical resources they're providing to Flint families every day. He also encouraged residents to pick up and return their water testing kits to Flint fire stations. Test results will be posted online at [www.mi.gov/flintwater](http://www.mi.gov/flintwater). [Click here to watch the video.](#)

[www.mi.gov/FlintWater](http://www.mi.gov/FlintWater) | [www.HelpForFlint.com](http://www.HelpForFlint.com)

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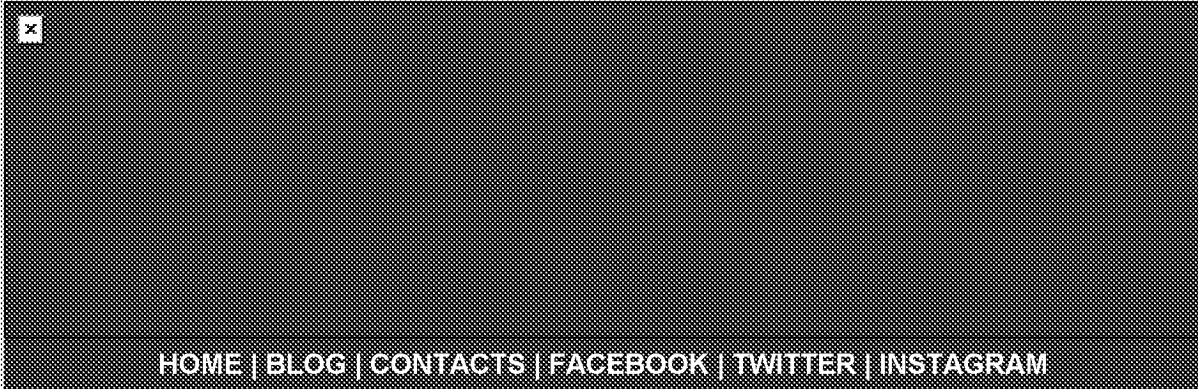
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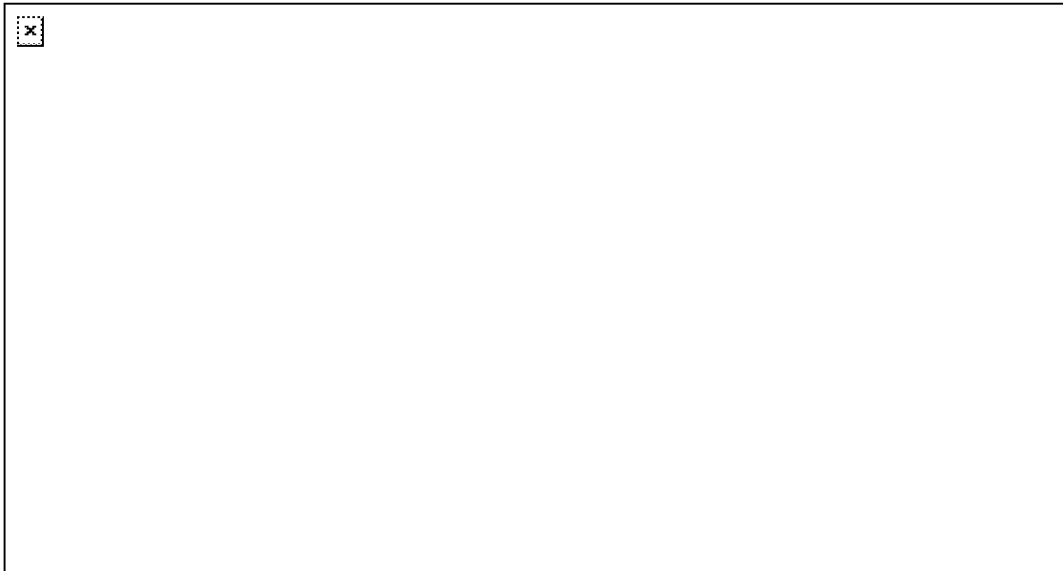
This email was sent to [roksiyrl@michigan.gov](mailto:roksiyrl@michigan.gov) on behalf of: The Executive Office of the Governor · 111 South Capitol Avenue · Lansing, MI 48908 · 517-335-7653

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**From:** Governor's Office <governorsoffice@govsubscriptions.michigan.gov>  
**Sent:** Thursday, February 11, 2016 5:49 PM  
**To:** Rokely, Rick (DTMB)  
**Subject:** What this year's budget means for Michigan...



## VIDEO: What Governor Snyder's FY17 budget means for Michigan



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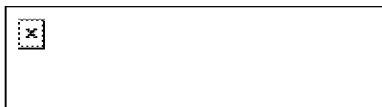
Gov. Rick Snyder's FY 2017 budget calls for critical investments for the Flint water crisis, statewide infrastructure and the Detroit Public Schools. The governor's recommendation also addresses the skyrocketing costs of specialty medications that Michigan residents depend on for better health outcomes.

This budget also stays committed to the Governor's core statewide priorities of education, talent and economic development, health and human services, and public safety.

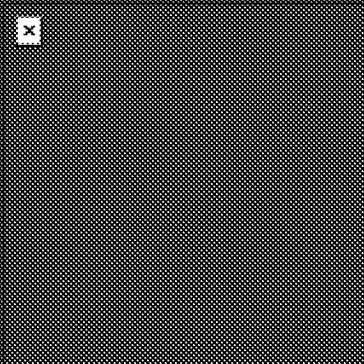
The proposed FY 2017 budget makes key investments to strengthen the state for all of



Michigan's families. Click here to learn more about the top 6 takeaways from the Governor's FY 2017 state budget.



### Click a tweet to tweet it out:



The #MIBudget @OneToughNerd proposed yesterday makes key investments to strengthen Michigan for all families --> [www.mi.gov/MIBudget](http://www.mi.gov/MIBudget)

--> @OneToughNerd's #MIBudget includes \$72 million a year for Detroit Public Schools. It is time to act now --> [www.mi.gov/MIBudget](http://www.mi.gov/MIBudget)

--> @onetoughnerd's significant investment in #Flint families is the right thing to do. #FlintFWD #MIBudget [www.mi.gov/MIBudget](http://www.mi.gov/MIBudget)

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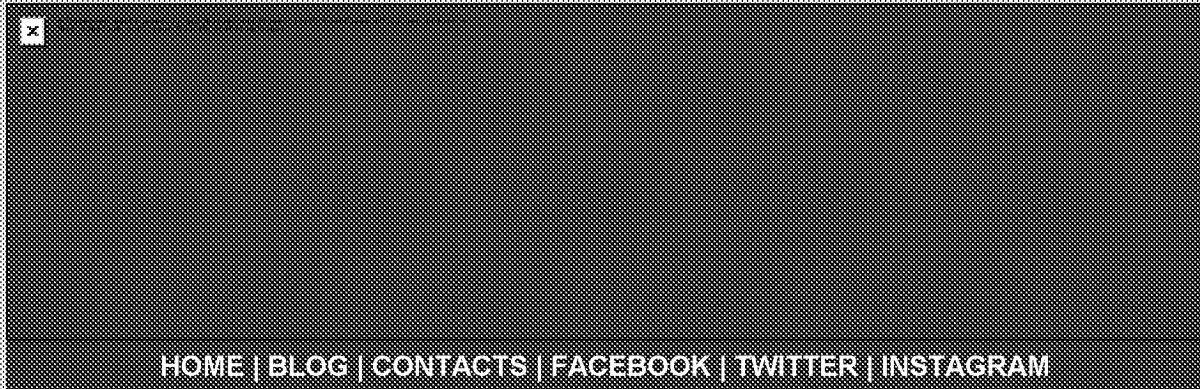
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**From:** Governor's Office <governorsoffice@govsubscriptions.michigan.gov>  
**Sent:** Tuesday, February 16, 2016 5:17 PM  
**To:** Rokely, Rick (DTMB)  
**Subject:** VIDEO: Volunteering in Flint



## VIDEO: How volunteers are helping Flint



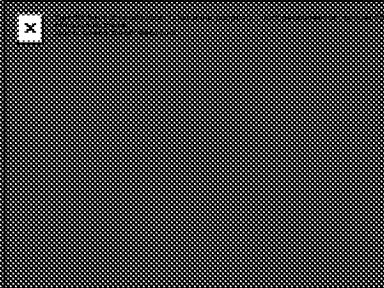
Volunteers at the Food Bank of Eastern Michigan are working hard to collect donations in order to help the families of Flint. Last Thursday, Governor Snyder visited with the many dedicated volunteers and helped sort cans of food.

Good nutrition is critically important for Flint's children. Foods that are high in calcium, vitamin C, and iron can help limit the effects of lead exposure. To donate or volunteer at the Food Bank of Eastern Michigan, visit [www.fbem.org](http://www.fbem.org).

[Click here to watch the video and learn more about how the Food Bank of Eastern Michigan is helping Flint's families.](#)

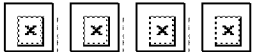


## LISTEN IN: Governor Snyder's tele-town hall with Flint residents



Governor Snyder hosted his third town hall with Flint residents on Thursday, Feb. 11, answering their questions directly. [Click here to listen to the call.](#)

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---

**From:** Philip, Brandon (DTMB)  
**Sent:** Wednesday, February 17, 2016 7:27 AM  
**To:** Rokely, Rick (DTMB)  
**Subject:** RE: NEW DEADLINE - Time Sensitive Request

Chris already sent in the names of those who he thought needed to be included in the FOIA request. I think he plans on having each person fill out a form so IT can extract related emails from the backend so we don't have to spend our time finding them. No actions for you at this point.

Thanks.

Brandon Philip

Michigan Department of Technology, Management & Budget  
Cybersecurity & Infrastructure Protection  
Office of Infrastructure Protection  
(517) 335-4110



HELP. CONNECT. SOLVE.

---

**From:** Rokely, Rick (DTMB)  
**Sent:** Tuesday, February 16, 2016 4:14 PM  
**To:** Philip, Brandon (DTMB) <philipb@michigan.gov>  
**Subject:** FW: NEW DEADLINE - Time Sensitive Request

Looks like after searching only one email came up regarding the criteria of the email below. It was approving a GovDelivery message that Allie had drafted. What is my role regarding this email and contents?

Thank you,  
Rick

---

**From:** Christensen, Chris (DTMB)  
**Sent:** Friday, February 12, 2016 5:03 PM  
**To:** Bidelman, Craig (DTMB); Brennan, Tammy (DTMB); Bussema, Terry (DTMB); Christensen, Chris (DTMB); Doll, Jeanette (DTMB); Fulger, Ron (DTMB); Goodenough, Cody (DTMB); Huybrechts, Thomas (DTMB); Keilen, Elizabeth (DTMB); Knapp, Kathy (DTMB); Kost, Ryan (DTMB); Lawson, Michelle (DTMB); Lucas, Matthew (DTMB); McKee, Ryan (DTMB); Mikula, Mark (DTMB); Mitchell, Guy (DTMB); Moore, Ed (DTMB); Morrison, Robert (DTMB); Nichols, Jim (DTMB); Parker, Alexandria (DTMB); Philip, Brandon (DTMB); Powell, Kelly (DTMB); Pratt, Jeff (DTMB); Rokely, Rick (DTMB); Ruedisale, Mary (DTMB); Schlegel, Nicolle (DTMB); Sebastian, Steven (DTMB); Shuler, Georgia (DTMB); Simon, Nathan (DTMB); Smith, David (DTMB); Tefft, Niki (DTMB); Thornton, Craig (DTMB); Tipton, Bob (DTMB); Tyree, John (DTMB)  
**Subject:** FW: NEW DEADLINE - Time Sensitive Request

Please see the email below and let me know if your name should be on the list to search for the Flint Issues.

Thanks

Chris Christensen

Director of Infrastructure Protection

Office: (517) 241-2188

Cell: (517) 243-1647

[Christensenc4@michigan.gov](mailto:Christensenc4@michigan.gov)



HELP. CONNECT. SOLVE.

Begin forwarded message:

**From:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>

**Date:** February 12, 2016 at 3:57:18 PM EST

**To:** "Allen, Charlotte (DTMB)" <[AllenC1@michigan.gov](mailto:AllenC1@michigan.gov)>, "Behen, David (DTMB)"

<[Behend@michigan.gov](mailto:Behend@michigan.gov)>, "Best, Marcy (DTMB)" <[BestM@michigan.gov](mailto:BestM@michigan.gov)>, "Brownlee, Jeff (DTMB)"

<[Brownieel@michigan.gov](mailto:Brownieel@michigan.gov)>, "Buhs, Caleb (DTMB)" <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>, "Davenport, Rodney

(DTMB)" <[DavenportR1@michigan.gov](mailto:DavenportR1@michigan.gov)>, "Donnan, Chanda (DTMB)" <[DonnanC@michigan.gov](mailto:DonnanC@michigan.gov)>,

"Fortino, Diane (DTMB)" <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>, "Gelisse, Ashley (DTMB)"

<[GelisseA@michigan.gov](mailto:GelisseA@michigan.gov)>, "Gilliland, Michael (DTMB)" <[gillilandm@michigan.gov](mailto:gillilandm@michigan.gov)>, "Gonzalez, Tonyia

(DTMB)" <[GonzalezT1@michigan.gov](mailto:GonzalezT1@michigan.gov)>, "Griswold, Kim (DTMB)" <[GRISWOLDK@michigan.gov](mailto:GRISWOLDK@michigan.gov)>,

"Ingersoll, Jean (DHHS)" <[IngersollJ@michigan.gov](mailto:IngersollJ@michigan.gov)>, "Jeffery, Phillip (DTMB)" <[jefferyp@michigan.gov](mailto:jefferyp@michigan.gov)>,

"King, Susan (MCSC)" <[KingS5@michigan.gov](mailto:KingS5@michigan.gov)>, "Kopacsi, Christian (DTMB)" <[KopacsiC@michigan.gov](mailto:KopacsiC@michigan.gov)>,

"Lowe, Richard (DTMB)" <[lower@michigan.gov](mailto:lower@michigan.gov)>, "Manning, Kelly (DTMB)"

<[ManningK4@michigan.gov](mailto:ManningK4@michigan.gov)>, "Mathews, Jamie (DTMB)" <[MathewsJ@michigan.gov](mailto:MathewsJ@michigan.gov)>, "McFarlane,

James (DTMB)" <[mcfarlanel@michigan.gov](mailto:mcfarlanel@michigan.gov)>, "Nixon, Ruth (DTMB)" <[NixonR@michigan.gov](mailto:NixonR@michigan.gov)>, "Palmer,

Jason (DTMB)" <[PalmerJ2@michigan.gov](mailto:PalmerJ2@michigan.gov)>, "Rabidoux, Jill (DTMB)" <[RabidouxJ@michigan.gov](mailto:RabidouxJ@michigan.gov)>,

"Ragsdale, Aimee (DTMB)" <[RagsdaleA@michigan.gov](mailto:RagsdaleA@michigan.gov)>, "Schafer, Dana (DTMB)"

<[schaferd1@michigan.gov](mailto:schaferd1@michigan.gov)>, "Swanson, Eric (DTMB)" <[swansone@michigan.gov](mailto:swansone@michigan.gov)>, "Sweeney, Matthew

(DTMB)" <[SweeneyM1@michigan.gov](mailto:SweeneyM1@michigan.gov)>, "Taylor, Beverly (DTMB)" <[TaylorBS@michigan.gov](mailto:TaylorBS@michigan.gov)>, "Trakul,

Pamela (DTMB)" <[TrakulP@michigan.gov](mailto:TrakulP@michigan.gov)>, "Turnquist, Michael (DTMB)" <[TurnquistM@michigan.gov](mailto:TurnquistM@michigan.gov)>,

"VanCoevery, Joyce (DTMB)" <[VancoeveringJ1@michigan.gov](mailto:VancoeveringJ1@michigan.gov)>, "Vanden Bosch, Kerrie (DTMB)"

<[vandenboschk@michigan.gov](mailto:vandenboschk@michigan.gov)>, "Wellman, Jeff (DTMB)" <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>

**Cc:** "Baker, Natasha (SRO)" <[BakerN5@michigan.gov](mailto:BakerN5@michigan.gov)>, "Hawks, Orlene (DTMB)"

<[HawksO@michigan.gov](mailto:HawksO@michigan.gov)>

**Subject:** NEW DEADLINE - Time Sensitive Request

Senior Management Team,

We just received the search terms for the document production. (See below.) Given the lateness of this email, we are asking you send your list of custodians to Jean Ingersoll **no later than noon on Tuesday, February 16.**

We are not asking you to conduct any searches right now. Further directions will come from Jean.

Search terms:

Legionnaire  
Legionella  
“boil water order” & “Flint” (anywhere in document)  
“coli” & Flint (anywhere in document)  
“bacteria” & “Flint” (anywhere in document)  
“microb” & “Flint” (anywhere in document)  
“TTHM” & “Flint” (anywhere in document)  
“Lead” & “Flint” (anywhere in document)  
“emergency” & “Flint” (anywhere in document)  
Karegnondi  
“Genesee County Health Department”  
“Flint” (within sentence) “utilities”  
“Lead and Copper Rule”  
“Detroit Water and Sewerage Department” & “Flint” (anywhere in document)  
“DWSD” & “Flint” (anywhere in document)  
“Flint River”  
“Pb” & “water” (anywhere in document)  
“KWA”

Please call me or Jean if you have any questions.

Brom

---

**From:** Stibitz, Brom (DTMB)

**Sent:** Thursday, February 11, 2016 4:40 PM

**To:** Allen, Charlotte (DTMB) <[AllenC1@michigan.gov](mailto:AllenC1@michigan.gov)>; Behen, David (DTMB) <[Behend@michigan.gov](mailto:Behend@michigan.gov)>; Best, Marcy (DTMB) <[BestM@michigan.gov](mailto:BestM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Buhs, Caleb (DTMB) <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>; Davenport, Rodney (DTMB) <[DavenportR1@michigan.gov](mailto:DavenportR1@michigan.gov)>; Donnan, Chanda (DTMB) <[DonnanC@michigan.gov](mailto:DonnanC@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Gelisse, Ashley (DTMB) <[GelisseA@michigan.gov](mailto:GelisseA@michigan.gov)>; Gilliland, Michael (DTMB) <[gillilandm@michigan.gov](mailto:gillilandm@michigan.gov)>; Gonzalez, Tonyia (DTMB) <[GonzalezT1@michigan.gov](mailto:GonzalezT1@michigan.gov)>; Griswold, Kim (DTMB) <[GRISWOLDK@michigan.gov](mailto:GRISWOLDK@michigan.gov)>; Ingersoll, Jean (DHHS) <[ingersollJ@michigan.gov](mailto:ingersollJ@michigan.gov)>; Jeffery, Phillip (DTMB) <[JefferyP@michigan.gov](mailto:JefferyP@michigan.gov)>; King, Susan (MCSC) <[KingS5@michigan.gov](mailto:KingS5@michigan.gov)>; Kopacsi, Christian (DTMB) <[KopacsiC@michigan.gov](mailto:KopacsiC@michigan.gov)>; Lowe, Richard (DTMB) <[lower@michigan.gov](mailto:lower@michigan.gov)>; Manning, Kelly (DTMB) <[ManningK4@michigan.gov](mailto:ManningK4@michigan.gov)>; Mathews, Jamie (DTMB) <[MathewsJ@michigan.gov](mailto:MathewsJ@michigan.gov)>; McFarlane, James (DTMB) <[mcfarlaneJ@michigan.gov](mailto:mcfarlaneJ@michigan.gov)>; Nixon, Ruth (DTMB) <[NixonR@michigan.gov](mailto:NixonR@michigan.gov)>; Palmer, Jason (DTMB) <[PalmerJ2@michigan.gov](mailto:PalmerJ2@michigan.gov)>; Rabidoux, Jill (DTMB) <[RabidouxJ@michigan.gov](mailto:RabidouxJ@michigan.gov)>; Ragsdale, Aimee (DTMB) <[RagsdaleA@michigan.gov](mailto:RagsdaleA@michigan.gov)>; Schafer, Dana (DTMB) <[schaferd1@michigan.gov](mailto:schaferd1@michigan.gov)>; Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>; Swanson, Eric (DTMB) <[swansone@michigan.gov](mailto:swansone@michigan.gov)>; Sweeney, Matthew (DTMB) <[SweeneyM1@michigan.gov](mailto:SweeneyM1@michigan.gov)>; Taylor, Beverly (DTMB) <[TaylorB8@michigan.gov](mailto:TaylorB8@michigan.gov)>; Trakul, Pamela (DTMB) <[TrakulP@michigan.gov](mailto:TrakulP@michigan.gov)>; Turnquist, Michael (DTMB) <[TurnquistM@michigan.gov](mailto:TurnquistM@michigan.gov)>; VanCoevery, Joyce (DTMB) <[VanCoeveryJ1@michigan.gov](mailto:VanCoeveryJ1@michigan.gov)>; Vanden Bosch, Kerrie (DTMB) <[vandenboschk@michigan.gov](mailto:vandenboschk@michigan.gov)>; Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>

**Subject:** Time Sensitive Request

SMT,

Jean Ingersoll is leading DTMB's effort to comply with document production requests related to freedom of information requests and certain lawsuits against the state.

At some point during the day tomorrow, Jean will share with you a list of standard “search terms” which we will use to compile documents related to this lawsuit.

**Within 2 hours of receiving this email from Jean, you need to respond with a list of likely custodians from your work area.** Jean may have more information on this tomorrow, but generally speaking a custodian will be a staff member who might reasonably be expected to have documents (electronic or otherwise) that correspond to the issues identified in the search terms.

If you have any questions, please call me or Jean. This is an important issue and I thank you in advance for your attention to this matter.

Brom Stibitz  
Chief Deputy Director  
Michigan Department of Technology, Management and Budget  
[stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004



**HELP. CONNECT. SOLVE.**

---

**From:** DTMB Director and CIO David Behen <dtmb@govsubscriptions.michigan.gov>  
**Sent:** Wednesday, February 17, 2016 10:10 AM  
**To:** Rokely, Rick (DTMB)  
**Subject:** The Gov. Snyder's Budget Proposal



Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.  
DTMB Header 02/22/16

Good morning everyone. I hope everyone had a great holiday weekend.

I had the good fortune to travel to Marquette on Monday with Chad Laidlaw, DTMB's policy and planning analyst, to meet with city, business and university leaders and to address the Economic Club of Marquette. I told them about the many things DTMB does, placing special emphasis on our work in mobility and cybersecurity. Marquette is really developing and making its mark as an innovative and entrepreneurial community.

Now work.

The executive budget Gov. Snyder presented last week outlined his investment plan for Michigan. Yes, the proposal for fiscal year 2017-18 outlined a strategy to address the critical challenges of addressing the Flint water crisis and turning around Detroit's Public Schools, but the \$54.9 billion plan also includes investment in four key areas:

- **Education.** The budget increases investment to K-12 schools, community colleges and the state's public universities. Additional funds are proposed to expand career, technical, science, technology, engineering and math programs.
- **Protecting the Public.** The governor's plan expands the Secure Cities program, which has reduced violent crime in four major Michigan cities. Funds also would support an additional trooper recruit school and an academy to train corrections officers, among other initiatives.
- **Putting People First.** The governor recommends continued expansion of the Healthy Kids Dental Program and funding efforts to ensure residents have access to affordable health care. His proposal boosts funds to help cover new higher cost specialty medications to treat conditions such as hepatitis C and cystic fibrosis, among others.
- **Investing in Infrastructure.** The proposal allocates \$1.2 billion to maintain and repair Michigan roads, bridges and other critical infrastructure.

The budget proposal also includes FY 2017-18 funding recommendations for DTMB. Gov. Snyder recommends ongoing funding of \$1.3 billion for department operations and a one-time allocation of \$32.4 million.



A few highlights include:

- \$502 million for information technology support for all state agencies and \$132.8 million for 14 high-priority IT projects in seven agencies. He recommends increasing the Information Technology Investment Fund by \$7 million, from \$65 million to \$72 million. This fund supports several major multiyear IT projects and upgrades, including the replacement of outdated legacy systems.
- An additional \$5 million to support cybersecurity improvements to safeguard citizens' personal information and protect critical infrastructure and government services.
- IT support of \$6.5 million to modernize the Office of Retirement Services' systems and enhance customer service for more than 530,000 current and future retirees.

You can see the full executive budget recommendations, which are posted on the Budget Office website. Details of DTMB's proposed budget begin on page B-75.

We can expect to see many changes before the budgets are signed and become effective Oct. 1. The executive budget will be used by the House and Senate Appropriations Committees as they work on their own budgets and hold committee hearings on the proposals. I'll keep you posted as the process moves ahead.

As always, I welcome your notes, whether about the budget process or any other topic. Please send them to me at [behend@michigan.gov](mailto:behend@michigan.gov).

Thank you again for all the good work you do. I hope you have a great week ahead.

David

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The Department of Technology, Management and Budget

You are receiving this email because you are an employee of the Department of Technology, Management and Budget. If you have questions about your subscription, please contact [DTMB-Communications@michigan.gov](mailto:DTMB-Communications@michigan.gov).

---

This email was sent to [rokelyr1@michigan.gov](mailto:rokelyr1@michigan.gov) using GovDelivery, on behalf of DTMB - Lewis Cass Building - 320 South Walnut Street - Lansing, MI 48933 517-373-1004

---

**From:** Cutler, Jamie (LARA)  
**Sent:** Wednesday, February 03, 2016 2:56 PM  
**To:** Pratt, Jeff (DTMB);Philip, Brandon (DTMB);Rokely, Rick (DTMB)  
**Subject:** FW: Bill for Services - LARA Ottawa Building Guard Services

All,

The request for a security guard for the MAHS Office located at 611 W. Ottawa 2<sup>nd</sup> Floor has been approved for Monday, February 8<sup>th</sup>. Please schedule accordingly. Please note I am awaiting for the Agency Object Code to be determined, but the index is: 07434. The department code is: 641

I will forward you the information as soon as I get it.

*Thank you,  
Jamie Cutler  
Office Services  
Department of Licensing and Regulatory Affairs  
Cell: 517.243.0145  
Fax: 517-373-7798  
Email: [cutlerj1@michigan.gov](mailto:cutlerj1@michigan.gov)  
Please consider the environment, do not print this email unless it is necessary*

---

**From:** Droste, LeAnn (LARA)  
**Sent:** Wednesday, February 03, 2016 12:16 PM  
**To:** Cutler, Jamie (LARA) <[CutlerJ1@michigan.gov](mailto:CutlerJ1@michigan.gov)>  
**Cc:** Thelen, Ethan (LARA) <[ThelenE@michigan.gov](mailto:ThelenE@michigan.gov)>  
**Subject:** RE: Bill for Services - LARA Ottawa Building Guard Services

Thank you!

LeAnn Droste  
Acting Director  
Finance and Administrative Services  
Department of Licensing & Regulatory Affairs  
517-373-3847  
517-373-2927 fax

LEGAL NOTICE: This e-mail is for the exclusive use of the intended recipient(s), and may contain privileged and confidential information. If you are not an intended recipient, please notify the sender, delete the e-mail from your computer and do not copy or disclose it to anyone else. Your receipt of this message is not intended to waive any applicable privilege. Neither this e-mail nor any attachment(s) establish an attorney-client relationship, constitute an electronic signature or provide consent to contract electronically, unless expressly so stated by the sender in the body of this e-mail or an attachment.

---

**From:** Cutler, Jamie (LARA)  
**Sent:** Wednesday, February 03, 2016 11:52 AM

**To:** Droste, LeAnn (LARA)  
**Cc:** Thelen, Ethan (LARA)  
**Subject:** RE: Bill for Services - LARA Ottawa Building Guard Services

I was unaware of this request. I will run it through the proper changes and seek approval from Budget. Thanks.

*Thank you,  
Jamie Cutler  
Office Services  
Department of Licensing and Regulatory Affairs  
Cell: 517.243.0145  
Fax: 517.373.7798  
Email: [cutlerj1@michigan.gov](mailto:cutlerj1@michigan.gov)  
Please consider the environment, do not print this email unless it is necessary*

---

**From:** Droste, LeAnn (LARA)  
**Sent:** Wednesday, February 03, 2016 11:43 AM  
**To:** Cutler, Jamie (LARA) <[CutlerJ1@michigan.gov](mailto:CutlerJ1@michigan.gov)>  
**Cc:** Thelen, Ethan (LARA) <[ThelenE@michigan.gov](mailto:ThelenE@michigan.gov)>  
**Subject:** FW: Bill for Services - LARA Ottawa Building Guard Services  
**Importance:** High

Jamie –

I believe you handle these requests. I'm not sure if Terry had contacted you prior to reaching out to Jeff Pratt?

LeAnn Droste  
Acting Director  
Finance and Administrative Services  
Department of Licensing & Regulatory Affairs  
517-373-3847  
517-373-2927 fax

LEGAL NOTICE: This e-mail is for the exclusive use of the intended recipient(s), and may contain privileged and confidential information. If you are not an intended recipient, please notify the sender, delete the e-mail from your computer and do not copy or disclose it to anyone else. Your receipt of this message is not intended to waive any applicable privilege. Neither this e-mail nor any attachment(s) establish an attorney-client relationship, constitute an electronic signature or provide consent to contract electronically, unless expressly so stated by the sender in the body of this e-mail or an attachment.

---

**From:** Colby, Terry (LARA)  
**Sent:** Wednesday, February 03, 2016 10:30 AM  
**To:** Droste, LeAnn (LARA)  
**Subject:** FW: Bill for Services - LARA Ottawa Building Guard Services  
**Importance:** High

Hi LeAnn,

I'm forwarding this to you for approval for a security guard at our hearing on Monday, February 8 per Rick Rokely's email below. This should be charged to DEQ – index 07434. Below is a little information the manager sent me on this DEQ hearing that will be starting on Monday. Thank you.

The matter involves the Holy Waters of the Au Sable. DEQ has approved a permit for a local farmer to produce 300,000 trout per year – which includes the discharge of 8.64 million gallons of waste water, including 25 pounds of phosphorous and 432 pounds of suspended solids, per day. An article published on the topic indicates that the waste will be the equivalent of a city of 65,000. DEQ acknowledges that the water quality will suffer, but says that decreases is necessary to support important social and economic development of the area.

The Sierra Club and Anglers of the Au Sable have been granted a permit appeal. The Sierra Club, with 2.4 million members/supporters, bills themselves as the nation's most influential grassroots environmental organization. With everything going on in Flint, I am not certain if external groups are watching Michigan's waters. I cannot guess if people will want to attend Dan's hearing.

Dan's hearing dates are February 8-12. 24-26, 29-March 3. From a MAHS perspective, I know that we need three counsel table and extra help at the front desk on that morning. In addition, Dan has asked that we alert the security on the first floor. There are four parties on the hearing. We will need to be sure that the parties are brought up swiftly on that day so that they can set up. There may be protesters. There may be concerned local residents. We have no idea what we are looking at.

*Terry Colby*

(517) 241-3914 | Fax (517) 241-4999  
Email: [colbyt@michigan.gov](mailto:colbyt@michigan.gov)

---

**From:** Rokely, Rick (DTMB)  
**Sent:** Wednesday, February 03, 2016 10:23 AM  
**To:** Colby, Terry (LARA)  
**Subject:** RE: Bill for Services - LARA Ottawa Building Guard Services

Hello,

Thank you for the updated information. The new estimate is now \$107.87 for guard services.

Thank you,

Rick Rokely

Michigan Department of Technology, Management & Budget  
Cybersecurity & Infrastructure Protection  
Office of Infrastructure Protection  
(517) 930-5371



HELP. CONNECT. SOLVE.

---

**From:** Colby, Terry (LARA)  
**Sent:** Wednesday, February 3, 2016 10:04 AM  
**To:** Rokely, Rick (DTMB) <[RokelyR1@michigan.gov](mailto:RokelyR1@michigan.gov)>  
**Subject:** RE: Bill for Services - LARA Ottawa Building Guard Services  
**Importance:** High

Hello Rick,

I'm sorry if I wasn't clear when I contacted Jeff Pratt, but we would like the security guard here all day on February 8, 2016 – 8:30am to 5pm or until the hearing adjourns. If you could provide me with a revised estimate I will forward that to authorized signer in LARA to approve. Thank you.

*Terry Colby*

(517) 241-3914 | Fax (517) 241-4999

Email: [colbyt@michigan.gov](mailto:colbyt@michigan.gov)

---

**From:** Rokely, Rick (DTMB)  
**Sent:** Wednesday, February 03, 2016 9:12 AM  
**To:** Colby, Terry (LARA)  
**Subject:** Bill for Services - LARA Ottawa Building Guard Services

Hello,

You are receiving this email in response to the recent request DTMB received to place a guard on February 8<sup>th</sup>, 2016 from 8:30am to 12:00pm in the Ottawa building. The estimate to complete this project is \$88.83. This estimate is good for 30 calendar days from today's date.

If you approve this estimate and would like to move forward with this project, please provide your agency bill back information (AGY, AY, Index, AOBJ) by replying to this email. If you provide your agency bill back information, you are authorizing the work and the billing of the work identified in this email.

If nothing is received from you, it will be assumed you choose to not move forward with this project.  
(Agency contact will be notified when cost exceeds estimate by 10 %.)

The email approval must come from an agency authorized signer. Authorized signers I have listed for LARA are:

- LeAnn Droste
- Ann Dennis
- Shirley Callahan

Thank you,

**Rick Rokely**

Michigan Department of Technology, Management & Budget  
Cybersecurity & Infrastructure Protection  
Office of Infrastructure Protection  
(517) 930-5371

**DTMB**  
**HELP. CONNECT. SOLVE.**

---

**From:** Rokely, Rick (DTMB)  
**Sent:** Tuesday, February 16, 2016 4:14 PM  
**To:** Philip, Brandon (DTMB)  
**Subject:** FW: NEW DEADLINE - Time Sensitive Request

Looks like after searching only one email came up regarding the criteria of the email below. It was approving a GovDelivery message that Allie had drafted. What is my role regarding this email and contents?

Thank you,  
Rick

---

**From:** Christensen, Chris (DTMB)  
**Sent:** Friday, February 12, 2016 5:03 PM  
**To:** Bidelman, Craig (DTMB); Brennan, Tammy (DTMB); Bussema, Terry (DTMB); Christensen, Chris (DTMB); Doll, Jeanette (DTMB); Fulger, Ron (DTMB); Goodenough, Cody (DTMB); Huybrechts, Thomas (DTMB); Keilen, Elizabeth (DTMB); Knapp, Kathy (DTMB); Kost, Ryan (DTMB); Lawson, Michelle (DTMB); Lucas, Matthew (DTMB); McKee, Ryan (DTMB); Mikula, Mark (DTMB); Mitchell, Guy (DTMB); Moore, Ed (DTMB); Morrison, Robert (DTMB); Nichols, Jim (DTMB); Parker, Alexandria (DTMB); Philip, Brandon (DTMB); Powell, Kelly (DTMB); Pratt, Jeff (DTMB); Rokely, Rick (DTMB); Ruedisale, Mary (DTMB); Schlegel, Nicolle (DTMB); Sebastian, Steven (DTMB); Shuler, Georgia (DTMB); Simon, Nathan (DTMB); Smith, David (DTMB); Tefft, Niki (DTMB); Thornton, Craig (DTMB); Tipton, Bob (DTMB); Tyree, John (DTMB)  
**Subject:** FW: NEW DEADLINE - Time Sensitive Request

Please see the email below and let me know if your name should be on the list to search for the Flint Issues.

Thanks

Chris Christensen  
Director of Infrastructure Protection  
Office: (517) 241-2188  
Cell: (517) 243-1647  
[Christensenc4@michigan.gov](mailto:Christensenc4@michigan.gov)



**HELP. CONNECT. SOLVE.**

Begin forwarded message:

**From:** "Stibitz, Brom (DTMB)" <StibitzB@michigan.gov>

**Date:** February 12, 2016 at 3:57:18 PM EST

**To:** "Allen, Charlotte (DTMB)" <AllenC1@michigan.gov>, "Behen, David (DTMB)" <Behend@michigan.gov>, "Best, Marcy (DTMB)" <BestM@michigan.gov>, "Brownlee, Jeff (DTMB)" <BrownleeJ@michigan.gov>, "Buhs, Caleb (DTMB)" <BuhsC@michigan.gov>, "Davenport, Rodney (DTMB)" <DavenportR1@michigan.gov>, "Donnan, Chanda (DTMB)" <DonnanC@michigan.gov>, "Fortino, Diane (DTMB)" <FortinoD@michigan.gov>, "Gelisse, Ashley (DTMB)" <GelisseA@michigan.gov>, "Gilliland, Michael (DTMB)" <gililandm@michigan.gov>, "Gonzalez, Tonyia (DTMB)" <GonzalezT1@michigan.gov>, "Griswold, Kim (DTMB)" <GRISWOLDK@michigan.gov>, "Ingersoll, Jean (DHHS)" <IngersollJ@michigan.gov>, "Jeffery, Phillip (DTMB)" <JefferyP@michigan.gov>, "King, Susan (MCSC)" <KingS5@michigan.gov>, "Kopacsi, Christian (DTMB)" <KopacsiC@michigan.gov>, "Lowe, Richard (DTMB)" <lower@michigan.gov>, "Manning, Kelly (DTMB)" <ManningK4@michigan.gov>, "Mathews, Jamie (DTMB)" <MathewsJ@michigan.gov>, "McFarlane, James (DTMB)" <mcfarlanej@michigan.gov>, "Nixon, Ruth (DTMB)" <NixonR@michigan.gov>, "Palmer, Jason (DTMB)" <PalmerJ2@michigan.gov>, "Rabidoux, Jill (DTMB)" <RabidouxJ@michigan.gov>, "Ragsdale, Aimee (DTMB)" <RagsdaleA@michigan.gov>, "Schafer, Dana (DTMB)" <schaferd1@michigan.gov>, "Swanson, Eric (DTMB)" <swansone@michigan.gov>, "Sweeney, Matthew (DTMB)" <SweeneyM1@michigan.gov>, "Taylor, Beverly (DTMB)" <TaylorB8@michigan.gov>, "Trakul, Pamela (DTMB)" <TrakulP@michigan.gov>, "Turnquist, Michael (DTMB)" <TurnquistM@michigan.gov>, "VanCoeverying, Joyce (DTMB)" <VancoeveringJ1@michigan.gov>, "Vanden Bosch, Kerrie (DTMB)" <vandenboschk@michigan.gov>, "Wellman, Jeff (DTMB)" <WellmanJ1@michigan.gov>  
**Cc:** "Baker, Natasha (SRO)" <BakerNS@michigan.gov>, "Hawks, Orlene (DTMB)" <HawksO@michigan.gov>

**Subject:** NEW DEADLINE - Time Sensitive Request

Senior Management Team,

We just received the search terms for the document production. (See below.) Given the lateness of this email, we are asking you send your list of custodians to Jean Ingersoll **no later than noon on Tuesday, February 16.**

We are not asking you to conduct any searches right now. Further directions will come from Jean.

Search terms:

Legionnaire  
Legionella  
"boil water order" & "Flint" (anywhere in document)  
"coli" & Flint (anywhere in document)  
"bacteria" & "Flint" (anywhere in document)  
"microb" & "Flint" (anywhere in document)  
"TTHM" & "Flint" (anywhere in document)  
"Lead" & "Flint" (anywhere in document)  
"emergency" & "Flint" (anywhere in document)  
Karegnondi  
"Genesee County Health Department"  
"Flint" (within sentence) "utilities"  
"Lead and Copper Rule"  
"Detroit Water and Sewerage Department" & "Flint" (anywhere in document)  
"DWSD" & "Flint" (anywhere in document)  
"Flint River"  
"Pb" & "water" (anywhere in document)

“KWA”

Please call me or Jean if you have any questions.

Brom

---

**From:** Stibitz, Brom (DTMB)

**Sent:** Thursday, February 11, 2016 4:40 PM

**To:** Allen, Charlotte (DTMB) <AllenC1@michigan.gov>; Behen, David (DTMB) <Behend@michigan.gov>; Best, Marcy (DTMB) <BestM@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Buhs, Caleb (DTMB) <BuhsC@michigan.gov>; Davenport, Rodney (DTMB) <DavenportR1@michigan.gov>; Donnan, Chanda (DTMB) <DonnanC@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Gelisse, Ashley (DTMB) <GelisseA@michigan.gov>; Gilliland, Michael (DTMB) <gillilandm@michigan.gov>; Gonzalez, Tonyia (DTMB) <GonzalezT1@michigan.gov>; Griswold, Kim (DTMB) <GRISWOLDK@michigan.gov>; Ingersoll, Jean (DHHS) <ingersollJ@michigan.gov>; Jeffery, Phillip (DTMB) <JefferyP@michigan.gov>; King, Susan (MCSC) <KingS5@michigan.gov>; Kopacsi, Christian (DTMB) <KopacsiC@michigan.gov>; Lowe, Richard (DTMB) <lower@michigan.gov>; Manning, Kelly (DTMB) <ManningK4@michigan.gov>; Mathews, Jamie (DTMB) <MathewsJ@michigan.gov>; McFarlane, James (DTMB) <mcfarlanej@michigan.gov>; Nixon, Ruth (DTMB) <NixonR@michigan.gov>; Palmer, Jason (DTMB) <PalmerJ2@michigan.gov>; Rabidoux, Jill (DTMB) <RabidouxJ@michigan.gov>; Ragsdale, Aimee (DTMB) <RagsdaleA@michigan.gov>; Schafer, Dana (DTMB) <schaferd1@michigan.gov>; Stibitz, Brom (DTMB) <StibitzB@michigan.gov>; Swanson, Eric (DTMB) <swansone@michigan.gov>; Sweeney, Matthew (DTMB) <SweeneyM1@michigan.gov>; Taylor, Beverly (DTMB) <TaylorB8@michigan.gov>; Trakul, Pamela (DTMB) <TrakulP@michigan.gov>; Turnquist, Michael (DTMB) <TurnquistM@michigan.gov>; VanCoevering, Joyce (DTMB) <VancoeveringJ1@michigan.gov>; Vanden Bosch, Kerrie (DTMB) <vandenboschk@michigan.gov>; Wellman, Jeff (DTMB) <WellmanJ1@michigan.gov>

**Subject:** Time Sensitive Request

SMT,

Jean Ingersoll is leading DTMB's effort to comply with document production requests related to freedom of information requests and certain lawsuits against the state.

At some point during the day tomorrow, Jean will share with you a list of standard “search terms” which we will use to compile documents related to this lawsuit.

**Within 2 hours of receiving this email from Jean, you need to respond with a list of likely custodians from your work area.** Jean may have more information on this tomorrow, but generally speaking a custodian will be a staff member who might reasonably be expected to have documents (electronic or otherwise) that correspond to the issues identified in the search terms.

If you have any questions, please call me or Jean. This is an important issue and I thank you in advance for your attention to this matter.

Brom Stibitz  
Chief Deputy Director  
Michigan Department of Technology, Management and Budget  
[stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004



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**Subject:** Flint - Purchasing Roles  
**Location:** CH-1N-Glenn Allen, Constitution Hall, Procurement Office

**Start:** Tue 2/9/2016 4:30 PM  
**End:** Tue 2/9/2016 5:00 PM

**Recurrence:** (none)

**Meeting Status:** Accepted

**Organizer:** Cook, Rebecca (DTMB)  
**Required Attendees:** Brownlee, Jeff (DTMB); Christensen, Chris (DTMB); Spaniolo, Natalie (DTMB); Knapp, Kathy (DTMB)  
**Optional Attendees:** Fortino, Diane (DTMB)

#### AGENDA

Recent guidelines memo from CPO

Discuss how this memo may supersede the current SEOC protocol (where all purchases go through one person). Current protocols did not contemplate such a broad emergency of long duration

Discuss agency purchasing roles and responsibilities to support SEOC members

Discuss how funding source may play a role in which purchasing staff assist

Discuss who determines whether a purchase is an emergency

Jeff, Chris and Natalie



Flint Emergency  
Purchasing Pro...

Jeff asked that I set u



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

DAVID B. BEHEN  
DIRECTOR

February 2, 2016

**TO:** State of Michigan Procurement Leadership  
**FROM:** DTMB Procurement  
**SUBJECT:** Genesee County Water Emergency Response - Purchasing Guidance

Thank you to all who are working to support the State of Michigan's Genesee County, City of Flint water emergency response.

Given the complexity and variety of the needs of this emergency effort, the purchasing support required is complex as well. Purchasing protocols have some differences under this declared state of emergency, and meticulous tracking of expenditures is imperative.

The Michigan State Police (MSP) is the lead agency overseeing the situation and managing the State Emergency Operations Center (SEOC). Flint related purchases must first be routed through the appropriate SEOC contact (see attached for an agency roster) to include the SEOC State Director. This is required for all Flint- related purchases without exception. The SEOC financial team is responsible for tracking all expenditures in connection with the emergency efforts.

***Each agency is responsible for its own purchasing transactions. This includes p-card transactions and purchase orders, the tracking of all such transactions, and reporting of those transactions to the appropriate SEOC representative. Failure to properly inform the SEOC financial team of any transaction may result in a forfeiture of any potential reimbursement anticipated by the agency.***

Agency purchasing managers are responsible to supply their agency's SEOC representative with a 24/7 phone number for agency purchasing staff support and request that the SEOC representative involves them in every purchase. (Note: SEOC hours are 8 am to 8 pm, seven days a week at this time.)

***Emergency Purchasing Procedure:***

Public Act 431 of 1984 provides an exception to competitive bidding during a state of emergency. However, responsible purchasing procedures are still the expectation for all procurement professionals (agency purchasing staff).

In addition to the notification and reporting expectations set forth above, transactions should be conducted and/or overseen by procurement professionals, with rare exception, in accordance with the following:

- Each agency makes their own determination when an emergency purchase order is required, and is then responsible for the supporting documentation
- Utilize existing State contracts where possible. Contact DTMB Procurement for help negotiating bulk rates or expedited shipments if needed, and for any concerns related to availability of funds on a contract

- Obtain three quotes whenever reasonably practicable
- Post bids online to the extent practicable
- Please escalate any questions to DTMB Procurement before executing a buy
- DTMB Procurement will assist any agency upon request to address supply chain issues (e.g. working with a national supplier to ensure a high volume supply of water filters are available)
- DTMB-Financial Services is not responsible for issuing emergency purchase orders on behalf of agencies with the exception of information technology related goods and services
- Maintain documentation supporting all transactions. Establish internal protocols to support this such as a single spreadsheet to track agency-wide transactions. Report your agency's expenses to the SEOC Finance team via your SEOC representative.

Questions, concerns, or comments should be directed to:

Primary Contact:

Rebecca Cook, Commodities Division Director

[Cookr6@michigan.gov](mailto:Cookr6@michigan.gov)

[REDACTED]

Secondary Contact:

Jeff Brownlee, Chief Procurement Officer

[brownleej@michigan.gov](mailto:brownleej@michigan.gov)

[REDACTED]

Sincerely,

Jeff Brownlee

Chief Procurement Officer

State of Michigan

---

**From:** Calahan, Heather (DTMB)  
**Sent:** Tuesday, January 19, 2016 1:41 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Flint Water filters

yes

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, January 19, 2016 1:40 PM  
**To:** Calahan, Heather (DTMB) <[CALAHANH@michigan.gov](mailto:CALAHANH@michigan.gov)>  
**Subject:** FW: Flint Water filters

Will you please take this one?

---

**From:** Sweeney, Matthew (DTMB)  
**Sent:** Tuesday, January 19, 2016 1:26 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Cc:** Calahan, Heather (DTMB) <[CALAHANH@michigan.gov](mailto:CALAHANH@michigan.gov)>  
**Subject:** FW: Flint Water filters

Do you know if we're buying the filters all from one source?

---

**From:** Lange, Michelle (GOV) [<mailto:LangeM3@michigan.gov>]  
**Sent:** Tuesday, January 19, 2016 11:43 AM  
**To:** Sweeney, Matthew (DTMB); Starr, Scott (DTMB)  
**Subject:** Fwd: Flint Water filters

Do you guys have info on this?

Begin forwarded message:

**From:** "Keilen, Alison (GOV)" <[keilena2@michigan.gov](mailto:keilena2@michigan.gov)>  
**Date:** January 19, 2016 at 11:29:11 AM EST  
**To:** "Lange, Michelle (GOV)" <[LangeM3@michigan.gov](mailto:LangeM3@michigan.gov)>  
**Subject:** FW: Flint Water filters

Where to direct them?

---

**From:** Rep. Larry Inman (District 104) [<mailto:LarryInman@house.mi.gov>]  
**Sent:** Tuesday, January 19, 2016 10:50 AM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>; Keilen, Alison (GOV) <[keilena2@michigan.gov](mailto:keilena2@michigan.gov)>; Sweeney, Matthew (DTMB) <[SweeneyM1@michigan.gov](mailto:SweeneyM1@michigan.gov)>; Dehner, Amy (MSP) <[DehnerA@michigan.gov](mailto:DehnerA@michigan.gov)>; Fitzgerald, Timothy (MSP) <[fitzgeraldt@michigan.gov](mailto:fitzgeraldt@michigan.gov)>  
**Subject:** FW: Flint Water filters

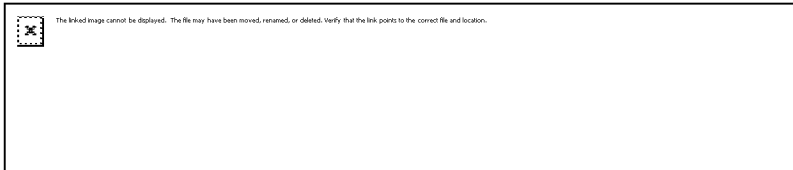
Good Morning,

Representative Inman received the following email from one of his constituents. If someone could help me to obtain this information I would be very grateful.

Thank you,

**Danielle Bruci**  
Legislative Assistant  
Office of State Representative Larry Inman

**Anderson House Office Building, S1388**  
124 North Capitol Avenue  
P.O. Box 30014  
Lansing, MI 48909-7514  
[DBruci@house.mi.gov](mailto:DBruci@house.mi.gov)  
Office: (517) 373-1766



---

**From:** Andy Marek [<mailto:diditforlove@yahoo.com>]  
**Sent:** Monday, January 18, 2016 10:32 PM  
**To:** Rep. Larry Inman (District 104) <[LarryInman@house.mi.gov](mailto:LarryInman@house.mi.gov)>  
**Subject:** Flint Water filters

Dear Representative Inman,

It has been brought to my attention that Michigan has been buying water filters for the City of Flint. I am interested in finding out what brand, model, and types of filters were purchased for Flint.

Thank you for your assistance retrieving this information,

Andy Marek  
2875 East Railroad Ave  
Interlochen, Mi 49643

(231)218-9175

[diditforlove@yahoo.com](mailto:diditforlove@yahoo.com)

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 11:18 AM  
**To:** Cook, Rebecca (DTMB); Hamilton, Kelly (DTMB)  
**Cc:** Davis, Stephen (DTMB); Maynard, Sharon (DTMB); Brownlee, Jeff (DTMB)  
**Subject:** RE: New Cell phone request - related to State emergency

Hi Rebecca:  
Yes, I'd be happy to help.

Who are they for? I'll need to check to make sure this isn't something that should be processed through Infrastructure Security as they have already purchased devices for this project.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:49 AM  
**To:** Hummel, Mindy (DTMB) <HummelM@michigan.gov>; Hamilton, Kelly (DTMB) <HamiltonK9@michigan.gov>  
**Cc:** Davis, Stephen (DTMB) <daviss1@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Subject:** New Cell phone request - related to State emergency

Mindy

Our cell phone coordinator Kelly is out sick today. Jeff Wellman asked me to check into getting two of our buyers State phones while they are involved in supporting the Emergency Ops Center/Flint.

Can you help me through basics to get rough numbers? Appreciate any assistance you can provide.

Rebecca Cook  
State of Michigan  
DTMB Procurement  
Commodities Division Director  
517-284-7008



**HELP. CONNECT. SOLVE.**

---

**From:** Wellman, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 10:41 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Melissa, thank you very much for volunteering -- it is greatly appreciated.

Rebecca - can we get Melissa a state phone?

Jeff W.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:38 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Cc:** Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>  
**Subject:** FW: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

FYI -- no action needed.

Just wanted to share we have a second staffer stepping up and delivering great customer service related to Flint. Melissa has volunteered to take phone questions related to water sampling bottles during the SEOC hours of 8 am to 8 pm. Or whenever the phone rings.

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Thursday, January 21, 2016 10:22 AM  
**To:** Wolf, Jennifer (DNR) <[WOLFJ1@michigan.gov](mailto:WOLFJ1@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Campbell, Mary Jo (DEQ) <[CAMPBELLM3@michigan.gov](mailto:CAMPBELLM3@michigan.gov)>; Austin, Dawn (DEQ) <[AUSTIND3@michigan.gov](mailto:AUSTIND3@michigan.gov)>; Smith, Carol (DEQ) <[SMITHC@michigan.gov](mailto:SMITHC@michigan.gov)>; Pieper, Julia (DEQ) <[PIEPERJ2@michigan.gov](mailto:PIEPERJ2@michigan.gov)>; Christensen, Christen (DEQ) <[CHRISTENSENC@michigan.gov](mailto:CHRISTENSENC@michigan.gov)>; Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Shane, Kirby (DEQ) <[SHANEK@michigan.gov](mailto:SHANEK@michigan.gov)>; Lundy, Anastasia (DEQ) <[LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)>; Adelman, Mitch (DEQ) <[ADELMANM@michigan.gov](mailto:ADELMANM@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Hi Jen,

As we discussed in our conference call, Melissa Sambiagio and I are the points of contact to order water testing bottles or any supplies necessary for the laboratory related to Flint. All individuals listed above are to be copied on any order request. In the event of an after office hours need, we can be reached as follows:

Tara Premoe	517-749-0796	Office hours 7:30 am to 4:00 pm
Melissa Sambiagio	517-404-0000	Office hours 7:30 am to 4:00 pm

After office hours contact by phone will be necessary, as neither of us have a state issued phone for which we receive email communications. Once we receive a phone alert, we can access email to determine the course of action.

In order to avoid the enormous shipping costs for overnight delivery of water testing bottles, please keep us apprised on the status of inventory and anticipated need.



Thank you.

**Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

**Melissa Sambiago**

DTMB, Commodities Division  
PH: (517) 284-7016  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)

**Sent:** Wednesday, January 20, 2016 3:12 PM

**To:** Shane, Kirby (DEQ); Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ); Cook, Rebecca (DTMB)

**Cc:** Sambiago, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)

**Subject:** RE: Conference Call ref. Purchases

Follow up to today's conference call:

Bottle orders may be requested by Mitch Adelman & Jen Wolf via their state email address or the MSP-EOC-MDEQ address to Tara Premoe & Melissa Sambiago with a copy to Kirby.

The address for the warehouse is Dell Warehouse, 4315 N Clio Rd, Flint, MI 48504

---

**From:** Shane, Kirby (DEQ)

**Sent:** Wednesday, January 20, 2016 9:59 AM

**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ)

**Cc:** Sambiago, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)

**Subject:** RE: Conference Call ref. Purchases

Can we conference call at 12:30 today to discuss this? I don't know how to setup a conference call from here, but if everyone is on board and someone can set up the call and distribute the call in number to the group that would be great!

Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shanek@michigan.gov](mailto:shanek@michigan.gov)  
517.335.9888

---

**From:** Premoe, Tara (DEQ)

**Sent:** Wednesday, January 20, 2016 9:52 AM

**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)

**Cc:** Sambiago, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)

**Subject:** RE: Conference Call ref. Purchases

Please see the email from yesterday afternoon, response from Jeanette Doll. FEMA is listed as taking over "collection bottles for water testing." This was also discussed in my phone discussion with her this morning.

**Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:48 AM  
**To:** Lundy, Anastasia (DEQ); Premoe, Tara (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Ah... I see where the confusion lies. They have taken over purchases of **Drinking Water**. Not test kit bottles.

---

**From:** Lundy, Anastasia (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:33 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

(Including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*  
*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:32 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB)  
**Subject:** RE: Conference Call ref. Purchases

Hi Jen,

This is opposite from the phone conversation I just had with Jeanette Doll and emails that FEMA will be taking over the water bottles. We have several orders pending with VWR for bottles, some shipping Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:26 AM  
**To:** Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Subject:** Conference Call ref. Purchases

Can we have a conference call today to discuss? As far as purchasing goes. The lab is still making all of their purchases. This includes test bottles, labels, etc. as this is an activity being conducted for DEQ, not a provision of life

services to the public. At times the SEOC rep is involved because it is after hours, on a weekend or like this week, a holiday where shipping needed to be expedited. We should not run into this problem again from here on out as we have provided clearer direction to Command Staff in the SEOC on our target numbers per George Krisztian.

All billing should still be going through the laboratory or RRD as always. If we need resources that our vendors cannot supply then we get with DTMB and possibly FEMA. We should be getting more direction here today on what and when FEMA will be integrating.

F/Lt. Jen Wolf

SEOC OPS Health and Env MDEQ

SEOC Desk 517-336-2676

[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 11:21 AM  
**To:** Hummel, Mindy (DTMB)  
**Cc:** Hamilton, Kelly (DTMB); Davis, Stephen (DTMB); Maynard, Sharon (DTMB); Brownlee, Jeff (DTMB)  
**Subject:** Re: New Cell phone request - related to State emergency

Steve Rigg and Melissa Sambiagio

I'm in meetings and Melissa will work with you to get any forms filled out, coordinate our sign offs etc.

Thanks for checking on that

On Jan 21, 2016, at 11:17 AM, Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)> wrote:

Hi Rebecca:  
Yes, I'd be happy to help.

Who are they for? I'll need to check to make sure this isn't something that should be processed through Infrastructure Security as they have already purchased devices for this project.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image003.png>

---

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**Cc:** Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
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Our cell phone coordinator Kelly is out sick today. Jeff Wellman asked me to check into getting two of our buyers State phones while they are involved in supporting the Emergency Ops Center/Flint.

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State of Michigan  
DTMB Procurement  
Commodities Division Director



HELP. CONNECT. SOLVE.

---

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FYI -- no action needed.

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Tara Premoe 517-749-0796  
Melissa Sambiagio 517-404-0000

Office hours 7:30 am to 4:00 pm  
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### **Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

### **Melissa Sambiagio**

DTMB, Commodities Division  
PH: (517) 284-7016  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

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Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shanek@michigan.gov](mailto:shanek@michigan.gov)

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Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

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**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
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**Sent:** Wednesday, January 20, 2016 9:33 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

(Including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*  
*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

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**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:32 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB)  
**Subject:** RE: Conference Call ref. Purchases

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Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

**Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

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**To:** Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)

**Subject:** Conference Call ref. Purchases

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F/Lt. Jen Wolf

SEOC OPS Health and Env MDEQ

SEOC Desk 517-336-2676

[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)



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**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 11:59 AM  
**To:** Cook, Rebecca (DTMB)  
**Cc:** Hamilton, Kelly (DTMB); Davis, Stephen (DTMB); Maynard, Sharon (DTMB); Brownlee, Jeff (DTMB)  
**Subject:** RE: New Cell phone request - related to State emergency  
**Attachments:** DTMB-0056.doc

Attached is the form that will need to be completed for both users. The devices available are:

iPhone 5S - \$0.99  
iPhone 6 - \$99.99  
Samsung Galaxy S5 - \$99.99

Once it has signed approval, please e-mail the form to me and I'll get them ordered.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

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**Sent:** Thursday, January 21, 2016 11:21 AM  
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**Cc:** Hamilton, Kelly (DTMB) <HamiltonK9@michigan.gov>; Davis, Stephen (DTMB) <daviss1@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
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Steve Rigg and Melissa Sambiagio

I'm in meetings and Melissa will work with you to get any forms filled out, coordinate our sign offs etc.

Thanks for checking on that

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Mindy Hummel  
DTMB/Financial Services

517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image003.png>

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Rebecca Cook  
State of Michigan  
DTMB Procurement  
Commodities Division Director  
517-284-7008



HELP. CONNECT. SOLVE.

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**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>  
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**Subject:** RE: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Melissa, thank you very much for volunteering – it is greatly appreciated.

Rebecca - can we get Melissa a state phone?

Jeff W.

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<maynards1@michigan.gov>

**Cc:** Wellman, Jeff (DTMB) <WellmanJ1@michigan.gov>

**Subject:** FW: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

FYI -- no action needed.

Just wanted to share we have a second staffer stepping up and delivering great customer service related to Flint. Melissa has volunteered to take phone questions related to water sampling bottles during the SEOC hours of 8 am to 8 pm. Or whenever the phone rings.

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**Sent:** Thursday, January 21, 2016 10:22 AM

**To:** Wolf, Jennifer (DNR) <WOLFJ1@michigan.gov>

**Cc:** Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>; Campbell, Mary Jo (DEQ) <CAMPBELLM3@michigan.gov>; Austin, Dawn (DEQ) <AUSTIND3@michigan.gov>; Smith, Carol (DEQ) <SMITHC@michigan.gov>; Pieper, Julia (DEQ) <PIEPERJ2@michigan.gov>; Christensen, Christen (DEQ) <CHRISTENSENC@michigan.gov>; Doll, Jeanette (DTMB) <dolli@michigan.gov>; Shane, Kirby (DEQ) <SHANEK@michigan.gov>; Lundy, Anastasia (DEQ) <LundyA1@michigan.gov>; Adelman, Mitch (DEQ) <ADELMANM@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>

**Subject:** Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Hi Jen,

As we discussed in our conference call, Melissa Sambiagio and I are the points of contact to order water testing bottles or any supplies necessary for the laboratory related to Flint. All individuals listed above are to be copied on any order request. In the event of an after office hours need, we can be reached as follows:

Tara Premoe	517-749-0796	Office hours 7:30 am to 4:00 pm
Melissa Sambiagio	517-404-0000	Office hours 7:30 am to 4:00 pm

After office hours contact by phone will be necessary, as neither of us have a state issued phone for which we receive email communications. Once we receive a phone alert, we can access email to determine the course of action.

In order to avoid the enormous shipping costs for overnight delivery of water testing bottles, please keep us apprised on the status of inventory and anticipated need.

Thank you.

**Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

**Melissa Sambiagio**

DTMB, Commodities Division  
PH: (517) 284-7016  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

---

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**Sent:** Wednesday, January 20, 2016 3:12 PM

**To:** Shane, Kirby (DEQ); Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ); Cook, Rebecca (DTMB)

**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)

**Subject:** RE: Conference Call ref. Purchases

Follow up to today's conference call:

Bottle orders may be requested by Mitch Adelman & Jen Wolf via their state email address or the MSP-EOC-MDEQ address to Tara Premoe & Melissa Sambiagio with a copy to Kirby.

The address for the warehouse is Dell Warehouse, 4315 N Clio Rd, Flint, MI 48504

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**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ)

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Can we conference call at 12:30 today to discuss this? I don't know how to setup a conference call from here, but if everyone is on board and someone can set up the call and distribute the call in number to the group that would be great!

Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shanek@michigan.gov](mailto:shanek@michigan.gov)  
517.335.9888

---

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*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

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SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:13 PM  
**To:** Hummel, Mindy (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB)  
**Subject:** RE: New Cell phone request - related to State emergency

Melissa can you please coordinate? Please interrupt leadership in any meeting for any signatures needed.  
Thank you.

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517-230-2447 Cell  
517-241-4856 Fax



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517-373-2215 Phone  
517-230-2447 Cell  
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<image003.png>

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Commodities Division Director  
517-284-7008



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**Sent:** Thursday, January 21, 2016 10:22 AM  
**To:** Wolf, Jennifer (DNR) <[WOLFJ1@michigan.gov](mailto:WOLFJ1@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Campbell, Mary Jo (DEQ) <[CAMPBELLM3@michigan.gov](mailto:CAMPBELLM3@michigan.gov)>; Austin, Dawn (DEQ) <[AUSTIND3@michigan.gov](mailto:AUSTIND3@michigan.gov)>; Smith, Carol (DEQ) <[SMITHC@michigan.gov](mailto:SMITHC@michigan.gov)>; Pieper, Julia (DEQ) <[PIEPERJ2@michigan.gov](mailto:PIEPERJ2@michigan.gov)>; Christensen, Christen (DEQ) <[CHRISTENSENC@michigan.gov](mailto:CHRISTENSENC@michigan.gov)>; Doll, Jeanette (DTMB) <[dolli@michigan.gov](mailto:dolli@michigan.gov)>; Shane, Kirby (DEQ) <[SHANEK@michigan.gov](mailto:SHANEK@michigan.gov)>; Lundy, Anastasia (DEQ) <[LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)>; Adelman, Mitch (DEQ) <[ADELMANM@michigan.gov](mailto:ADELMANM@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
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Administration  
Department of Environmental Quality  
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**Melissa Sambiago**  
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Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
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*Administration, RRD-DEQ*  
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**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:26 AM  
**To:** Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Subject:** Conference Call ref. Purchases

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F/Lt. Jen Wolf  
SEOC OPS Health and Env MDEQ  
SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)

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**Sent:** Thursday, January 21, 2016 12:16 PM  
**To:** Cook, Rebecca (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB)  
**Subject:** RE: New Cell phone request - related to State emergency

If I can get them ordered today, they will be delivered tomorrow.

Will they need access to mail, contacts and calendar?

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

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Melissa can you please coordinate? Please interrupt leadership in any meeting for any signatures needed.  
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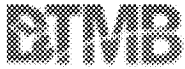
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Steve Rigg and Melissa Sambiagio

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<[image003.png](#)>

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Our cell phone coordinator Kelly is out sick today. Jeff Wellman asked me to check into getting two of our buyers State phones while they are involved in supporting the Emergency Ops Center/Flint.

Can you help me through basics to get rough numbers? Appreciate any assistance you can provide.

Rebecca Cook

State of Michigan

DTMB Procurement



HELP. CONNECT. SOLVE.

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Melissa, thank you very much for volunteering -- it is greatly appreciated.

Rebecca - can we get Melissa a state phone?

Jeff W.

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FYI -- no action needed.

Just wanted to share we have a second staffer stepping up and delivering great customer service related to Flint. Melissa has volunteered to take phone questions related to water sampling bottles during the SEOC hours of 8 am to 3 pm. Or whenever the phone rings.

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**From:** Premoe, Tara (DEQ)  
**Sent:** Thursday, January 21, 2016 10:22 AM  
**To:** Wolf, Jennifer (DNR) <[WOLFJ1@michigan.gov](mailto:WOLFJ1@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Campbell, Mary Jo (DEQ) <[CAMPBELLM3@michigan.gov](mailto:CAMPBELLM3@michigan.gov)>; Austin, Dawn (DEQ) <[AUSTIND3@michigan.gov](mailto:AUSTIND3@michigan.gov)>; Smith, Carol (DEQ) <[SMITHC@michigan.gov](mailto:SMITHC@michigan.gov)>; Pieper, Julia (DEQ) <[PIEPERJ2@michigan.gov](mailto:PIEPERJ2@michigan.gov)>; Christensen, Christen (DEQ) <[CHRISTENSENC@michigan.gov](mailto:CHRISTENSENC@michigan.gov)>; Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Shane, Kirby (DEQ) <[SHANEK@michigan.gov](mailto:SHANEK@michigan.gov)>; Lundy, Anastasia (DEQ) <[LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)>; Adelman, Mitch (DEQ) <[ADELMANM@michigan.gov](mailto:ADELMANM@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
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Hi Jen,

As we discussed in our conference call, Melissa Sambiagio and I are the points of contact to order water testing bottles or any supplies necessary for the laboratory related to Flint. All individuals listed above are to be copied on any order request. In the event of an after office hours need, we can be reached as follows:

Tara Premoe	517-749-0796	Office hours 7:30 am to 4:00 pm
Melissa Sambiagio	517-404-0000	Office hours 7:30 am to 4:00 pm

After office hours contact by phone will be necessary, as neither of us have a state issued phone for which we receive email communications. Once we receive a phone alert, we can access email to determine the course of action.

In order to avoid the enormous shipping costs for overnight delivery of water testing bottles, please keep us apprised on the status of inventory and anticipated need.

Thank you.

### **Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

### **Melissa Sambiagio**

DTMB, Commodities Division  
PH: (517) 284-7016  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 3:12 PM  
**To:** Shane, Kirby (DEQ); Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ); Cook, Rebecca (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Follow up to today's conference call:

Bottle orders may be requested by Mitch Adelman & Jen Wolf via their state email address or the MSP-EOC-MDEQ address to Tara Premoe & Melissa Sambiagio with a copy to Kirby.

The address for the warehouse is Dell Warehouse, 4315 N Clio Rd, Flint, MI 48504

---

**From:** Shane, Kirby (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:59 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Can we conference call at 12:30 today to discuss this? I don't know how to setup a conference call from here, but if everyone is on board and someone can set up the call and distribute the call in number to the group that would be great!

Kirby Shane  
Chief, Inorganic Unit



Laboratory Services  
MichiganDEQ  
[shanek@michigan.gov](mailto:shanek@michigan.gov)  
517.335.9888

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:52 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Please see the email from yesterday afternoon, response from Jeanette Doll. FEMA is listed as taking over "collection bottles for water testing." This was also discussed in my phone discussion with her this morning.

### Tara Premoe

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:48 AM  
**To:** Lundy, Anastasia (DEQ); Premoe, Tara (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Ah... I see where the confusion lies. They have taken over purchases of **Drinking Water**. Not test kit bottles.

---

**From:** Lundy, Anastasia (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:33 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

(Including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*  
*Administration, RRQ-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:32 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB)  
**Subject:** RE: Conference Call ref. Purchases

Hi Jen,

This is opposite from the phone conversation I just had with Jeanette Doll and emails that FEMA will be taking over the water bottles. We have several orders pending with VWR for bottles, some shipping Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

## **Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

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F/Lt. Jen Wolf

SEOC OPS Health and Env MDEQ

SEOC Desk 517-336-2676

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**Subject:** RE: New Cell phone request - related to State emergency

Definite yes on that.

Knew I could count on you -- thanks a million Mindy!

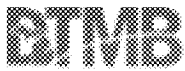
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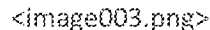
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State of Michigan  
DTMB Procurement  
Commodities Division Director  
517-284-7008



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Administration  
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PH: (517) 284-5012  
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## **Melissa Sambiagio**

DTMB, Commodities Division  
PH: (517) 284-7016  
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**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Can we conference call at 12:30 today to discuss this? I don't know how to setup a conference call from here, but if everyone is on board and someone can set up the call and distribute the call in number to the group that would be great!

Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shanek@michigan.gov](mailto:shanek@michigan.gov)  
517.335.9888

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:52 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Please see the email from yesterday afternoon, response from Jeanette Doll. FEMA is listed as taking over "collection bottles for water testing." This was also discussed in my phone discussion with her this morning.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:48 AM  
**To:** Lundy, Anastasia (DEQ); Premoe, Tara (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Ah... I see where the confusion lies. They have taken over purchases of **Drinking Water**. Not test kit bottles.

---

**From:** Lundy, Anastasia (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:33 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

(Including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*

*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:32 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB)  
**Subject:** RE: Conference Call ref. Purchases

Hi Jen,

This is opposite from the phone conversation I just had with Jeanette Doll and emails that FEMA will be taking over the water bottles. We have several orders pending with VWR for bottles, some shipping Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

**Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:26 AM  
**To:** Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Subject:** Conference Call ref. Purchases

Can we have a conference call today to discuss? As far as purchasing goes. The lab is still making all of their purchases. This includes test bottles, labels, etc. as this is an activity being conducted for DEQ, not a provision of life services to the public. At times the SEOC rep is involved because it is after hours, on a weekend or like this week, a holiday where shipping needed to be expedited. We should not run into this problem again from here on out as we have provided clearer direction to Command Staff in the SEOC on our target numbers per George Krisztian.

All billing should still be going through the laboratory or RRD as always. If we need resources that our vendors cannot supply then we get with DTMB and possibly FEMA. We should be getting more direction here today on what and when FEMA will be integrating.

F/Lt. Jen Wolf  
SEOC OPS Health and Env MDEQ  
SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)



---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 12:23 PM  
**To:** Cook, Rebecca (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB)  
**Subject:** RE: New Cell phone request - related to State emergency

No problem at all.

Are they located downtown or Secondary?

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:22 PM  
**To:** Hummel, Mindy (DTMB) <HummelM@michigan.gov>  
**Cc:** Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>  
**Subject:** RE: New Cell phone request - related to State emergency

Definite yes on that.

Knew I could count on you -- thanks a million Mindy!

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 12:16 PM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Cc:** Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>  
**Subject:** RE: New Cell phone request - related to State emergency

If I can get them ordered today, they will be delivered tomorrow.

Will they need access to mail, contacts and calendar?

Mindy Hummel  
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**HELP. CONNECT. SOLVE.**

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**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Melissa can you please coordinate? Please interrupt leadership in any meeting for any signatures needed.  
Thank you.

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 11:59 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Attached is the form that will need to be completed for both users. The devices available are:

iPhone 5S - \$0.99  
iPhone 6 - \$99.99  
Samsung Galaxy S5 - \$99.99

Once it has signed approval, please e-mail the form to me and I'll get them ordered.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

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**Sent:** Thursday, January 21, 2016 11:21 AM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Re: New Cell phone request - related to State emergency

Steve Rigg and Melissa Sambiagio

I'm in meetings and Melissa will work with you to get any forms filled out, coordinate our sign offs etc.

Thanks for checking on that

On Jan 21, 2016, at 11:17 AM, Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)> wrote:

Hi Rebecca:  
Yes, I'd be happy to help.

Who are they for? I'll need to check to make sure this isn't something that should be processed through Infrastructure Security as they have already purchased devices for this project.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image003.png>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:49 AM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>; Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>  
**Cc:** Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** New Cell phone request - related to State emergency

Mindy

Our cell phone coordinator Kelly is out sick today. Jeff Wellman asked me to check into getting two of our buyers State phones while they are involved in supporting the Emergency Ops Center/Flint.

Can you help me through basics to get rough numbers? Appreciate any assistance you can provide.

Rebecca Cook  
State of Michigan  
DTMB Procurement  
Commodities Division Director  
517-284-7008



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---

**From:** Wellman, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 10:41 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Sambigiato, Melissa (DTMB) <[SambiagiatoM@michigan.gov](mailto:SambiagiatoM@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Melissa, thank you very much for volunteering – it is greatly appreciated.

Rebecca - can we get Melissa a state phone?

Jeff W.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:38 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Cc:** Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>  
**Subject:** FW: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

FYI -- no action needed.

Just wanted to share we have a second staffer stepping up and delivering great customer service related to Flint. Melissa has volunteered to take phone questions related to water sampling bottles during the SEOC hours of 8 am to 8 pm. Or whenever the phone rings.

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Thursday, January 21, 2016 10:22 AM  
**To:** Wolf, Jennifer (DNR) <[WOLFJ1@michigan.gov](mailto:WOLFJ1@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Campbell, Mary Jo (DEQ) <[CAMPBELLM3@michigan.gov](mailto:CAMPBELLM3@michigan.gov)>; Austin, Dawn (DEQ) <[AUSTIND3@michigan.gov](mailto:AUSTIND3@michigan.gov)>; Smith, Carol (DEQ) <[SMITHC@michigan.gov](mailto:SMITHC@michigan.gov)>; Pieper, Julia (DEQ) <[PIEPERJ2@michigan.gov](mailto:PIEPERJ2@michigan.gov)>; Christensen, Christen (DEQ) <[CHRISTENSENC@michigan.gov](mailto:CHRISTENSENC@michigan.gov)>; Doll, Jeanette (DTMB) <[dolli@michigan.gov](mailto:dolli@michigan.gov)>; Shane, Kirby (DEQ) <[SHANEK@michigan.gov](mailto:SHANEK@michigan.gov)>; Lundy, Anastasia (DEQ) <[LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)>; Adelman, Mitch (DEQ) <[ADELMANM@michigan.gov](mailto:ADELMANM@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Hi Jen,

As we discussed in our conference call, Melissa Sambiagio and I are the points of contact to order water testing bottles or any supplies necessary for the laboratory related to Flint. All individuals listed above are to be copied on any order request. In the event of an after office hours need, we can be reached as follows:

Tara Premoe	517-749-0796	Office hours 7:30 am to 4:00 pm
Melissa Sambiagio	517-404-0000	Office hours 7:30 am to 4:00 pm

After office hours contact by phone will be necessary, as neither of us have a state issued phone for which we receive email communications. Once we receive a phone alert, we can access email to determine the course of action.

In order to avoid the enormous shipping costs for overnight delivery of water testing bottles, please keep us apprised on the status of inventory and anticipated need.

Thank you.

### **Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

### **Melissa Sambiagio**

DTMB, Commodities Division  
PH: (517) 284-7016  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 3:12 PM  
**To:** Shane, Kirby (DEQ); Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ); Cook, Rebecca (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Follow up to today's conference call:

Bottle orders may be requested by Mitch Adelman & Jen Wolf via their state email address or the MSP-EOC-MDEQ address to Tara Premoe & Melissa Sambiagio with a copy to Kirby.

The address for the warehouse is Dell Warehouse, 4315 N Clio Rd, Flint, MI 48504

---

**From:** Shane, Kirby (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:59 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Can we conference call at 12:30 today to discuss this? I don't know how to setup a conference call from here, but if everyone is on board and someone can set up the call and distribute the call in number to the group that would be great!

Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shanek@michigan.gov](mailto:shanek@michigan.gov)  
517.335.9888

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:52 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Please see the email from yesterday afternoon, response from Jeanette Doll. FEMA is listed as taking over "collection bottles for water testing." This was also discussed in my phone discussion with her this morning.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
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**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Ah... I see where the confusion lies. They have taken over purchases of **Drinking Water**. Not test kit bottles.

---

**From:** Lundy, Anastasia (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:33 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

(Including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*  
*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

---

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**Sent:** Wednesday, January 20, 2016 9:32 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
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Hi Jen,

This is opposite from the phone conversation I just had with Jeanette Doll and emails that FEMA will be taking over the water bottles. We have several orders pending with VWR for bottles, some shipping Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

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this problem again from here on out as we have provided clearer direction to Command Staff in the SEOC on our target numbers per George Krisztian.

All billing should still be going through the laboratory or RRD as always. If we need resources that our vendors cannot supply then we get with DTMB and possibly FEMA. We should be getting more direction here today on what and when FEMA will be integrating.

F/Lt. Jen Wolf  
SEOC OPS Health and Env MDEQ  
SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:26 PM  
**To:** Hummel, Mindy (DTMB)  
**Cc:** Sambbiagio, Melissa (DTMB);Brownlee, Jeff (DTMB);Maynard, Sharon (DTMB)  
**Subject:** RE: New Cell phone request - related to State emergency

Downtown. Constitution Hall  
First Floor, North Tower  
Procurement is off of the main entrance lobby.  
Both are by Pillar Q2

---

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**Sent:** Thursday, January 21, 2016 12:23 PM  
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**HELP. CONNECT. SOLVE.**

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**Subject:** RE: New Cell phone request - related to State emergency

Definite yes on that.

Knew I could count on you -- thanks a million Mindy!

---

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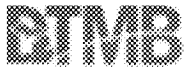
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**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>

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Mindy Hummel  
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517-373-2215 Phone  
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517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

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**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>

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Steve Rigg and Melissa Sambiagio

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517-241-4856 Fax  
<image003.png>

---

**From:** Cook, Rebecca (DTMB)

**Sent:** Thursday, January 21, 2016 10:49 AM

**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>; Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>

**Cc:** Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>

**Subject:** New Cell phone request - related to State emergency

Mindy

Our cell phone coordinator Kelly is out sick today. Jeff Wellman asked me to check into getting two of our buyers State phones while they are involved in supporting the Emergency Ops Center/Flint.

Can you help me through basics to get rough numbers? Appreciate any assistance you can provide.

Rebecca Cook  
State of Michigan  
DTMB Procurement  
Commodities Division Director  
517-284-7008

**DTMB**  
**HELP. CONNECT. SOLVE.**

---

**From:** Wellman, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 10:41 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Melissa, thank you very much for volunteering -- it is greatly appreciated.

Rebecca - can we get Melissa a state phone?

Jeff W.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:38 AM  
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**Subject:** FW: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

FYI -- no action needed.

Just wanted to share we have a second staffer stepping up and delivering great customer service related to Flint. Melissa has volunteered to take phone questions related to water sampling bottles during the SEOC hours of 8 am to 8 pm. Or whenever the phone rings.

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**From:** Premoe, Tara (DEQ)  
**Sent:** Thursday, January 21, 2016 10:22 AM  
**To:** Wolf, Jennifer (DNR) <[WOLFJ1@michigan.gov](mailto:WOLFJ1@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Campbell, Mary Jo (DEQ) <[CAMPBELLM3@michigan.gov](mailto:CAMPBELLM3@michigan.gov)>; Austin, Dawn (DEQ) <[AUSTIND3@michigan.gov](mailto:AUSTIND3@michigan.gov)>; Smith, Carol (DEQ) <[SMITHC@michigan.gov](mailto:SMITHC@michigan.gov)>; Pieper, Julia (DEQ) <[PIEPERJ2@michigan.gov](mailto:PIEPERJ2@michigan.gov)>; Christensen, Christen (DEQ) <[CHRISTENSENC@michigan.gov](mailto:CHRISTENSENC@michigan.gov)>; Doll, Jeanette (DTMB) <[dolli@michigan.gov](mailto:dolli@michigan.gov)>; Shane, Kirby (DEQ) <[SHANEK@michigan.gov](mailto:SHANEK@michigan.gov)>; Lundy, Anastasia (DEQ) <[LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)>; Adelman, Mitch (DEQ) <[ADELMANM@michigan.gov](mailto:ADELMANM@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Hi Jen,

As we discussed in our conference call, Melissa Sambiagio and I are the points of contact to order water testing bottles or any supplies necessary for the laboratory related to Flint. All individuals listed above are to be copied on any order request. In the event of an after office hours need, we can be reached as follows:

Tara Premoe	517-749-0796	Office hours 7:30 am to 4:00 pm
Melissa Sambiagio	517-404-0000	Office hours 7:30 am to 4:00 pm

After office hours contact by phone will be necessary, as neither of us have a state issued phone for which we receive email communications. Once we receive a phone alert, we can access email to determine the course of action.

In order to avoid the enormous shipping costs for overnight delivery of water testing bottles, please keep us apprised on the status of inventory and anticipated need.

Thank you.

**Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

**Melissa Sambiago**

DTMB, Commodities Division  
PH: (517) 284-7016  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)

**Sent:** Wednesday, January 20, 2016 3:12 PM

**To:** Shane, Kirby (DEQ); Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ); Cook, Rebecca (DTMB)

**Cc:** Sambiago, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)

**Subject:** RE: Conference Call ref. Purchases

Follow up to today's conference call:

Bottle orders may be requested by Mitch Adelman & Jen Wolf via their state email address or the MSP-EOC-MDEQ address to Tara Premoe & Melissa Sambiago with a copy to Kirby.

The address for the warehouse is Dell Warehouse, 4315 N Clio Rd, Flint, MI 48504

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**From:** Shane, Kirby (DEQ)

**Sent:** Wednesday, January 20, 2016 9:59 AM

**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ)

**Cc:** Sambiago, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)

**Subject:** RE: Conference Call ref. Purchases

Can we conference call at 12:30 today to discuss this? I don't know how to setup a conference call from here, but if everyone is on board and someone can set up the call and distribute the call in number to the group that would be great!

Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shanek@michigan.gov](mailto:shanek@michigan.gov)  
517.335.9888

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:52 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Please see the email from yesterday afternoon, response from Jeanette Doll. FEMA is listed as taking over "collection bottles for water testing." This was also discussed in my phone discussion with her this morning.

## **Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:48 AM  
**To:** Lundy, Anastasia (DEQ); Premoe, Tara (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Ah... I see where the confusion lies. They have taken over purchases of **Drinking Water**. Not test kit bottles.

---

**From:** Lundy, Anastasia (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:33 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

(Including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*  
*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:32 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB)  
**Subject:** RE: Conference Call ref. Purchases

Hi Jen,

This is opposite from the phone conversation I just had with Jeanette Doll and emails that FEMA will be taking over the water bottles. We have several orders pending with VWR for bottles, some shipping Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

## Tara Premoe

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)

**Sent:** Wednesday, January 20, 2016 9:26 AM

**To:** Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)

**Subject:** Conference Call ref. Purchases

Can we have a conference call today to discuss? As far as purchasing goes. The lab is still making all of their purchases. This includes test bottles, labels, etc. as this is an activity being conducted for DEQ, not a provision of life services to the public. At times the SEOC rep is involved because it is after hours, on a weekend or like this week, a holiday where shipping needed to be expedited. We should not run into this problem again from here on out as we have provided clearer direction to Command Staff in the SEOC on our target numbers per George Krisztian.

All billing should still be going through the laboratory or RRD as always. If we need resources that our vendors cannot supply then we get with DTMB and possibly FEMA. We should be getting more direction here today on what and when FEMA will be integrating.

F/Lt. Jen Wolf  
SEOC OPS Health and Env MDEQ  
SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 12:27 PM  
**To:** Cook, Rebecca (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB)  
**Subject:** RE: New Cell phone request - related to State emergency

Ok. I'll have them shipped to me and I'll work remotely with the Smart Device Support Team to get them activated tomorrow.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:26 PM  
**To:** Hummel, Mindy (DTMB) <HummelM@michigan.gov>  
**Cc:** Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>  
**Subject:** RE: New Cell phone request - related to State emergency

Downtown. Constitution Hall  
First Floor, North Tower  
Procurement is off of the main entrance lobby.  
Both are by Pillar Q2

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 12:23 PM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Cc:** Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>  
**Subject:** RE: New Cell phone request - related to State emergency

No problem at all.

Are they located downtown or Secondary?

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



HELP. CONNECT. SOLVE.

---

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**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Definite yes on that.

Knew I could count on you -- thanks a million Mindy!

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 12:16 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

If I can get them ordered today, they will be delivered tomorrow.

Will they need access to mail, contacts and calendar?

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



HELP. CONNECT. SOLVE.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:13 PM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Melissa can you please coordinate? Please interrupt leadership in any meeting for any signatures needed.  
Thank you.

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 11:59 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency



Attached is the form that will need to be completed for both users. The devices available are:

iPhone 5S - \$0.99

iPhone 6 - \$99.99

Samsung Galaxy S5 - \$99.99

Once it has signed approval, please e-mail the form to me and I'll get them ordered.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

---

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**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>

**Subject:** Re: New Cell phone request - related to State emergency

Steve Rigg and Melissa Sambiagio

I'm in meetings and Melissa will work with you to get any forms filled out, coordinate our sign offs etc.

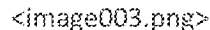
Thanks for checking on that

On Jan 21, 2016, at 11:17 AM, Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)> wrote:

Hi Rebecca:

Yes, I'd be happy to help.

Who are they for? I'll need to check to make sure this isn't something that should be processed through Infrastructure Security as they have already purchased devices for this project.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
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<>

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Just wanted to share we have a second staffer stepping up and delivering great customer service related to Flint. Melissa has volunteered to take phone questions related to water sampling bottles during the SEOC hours of 8 am to 8 pm. Or whenever the phone rings.

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## **Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

## **Melissa Sambiagio**

DTMB, Commodities Division  
PH: (517) 284-7016  
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Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shane@michigan.gov](mailto:shane@michigan.gov)  
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**Tara Premoe**  
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PH: (517) 284-5012  
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**Subject:** RE: Conference Call ref. Purchases

(Including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*

*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:32 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB)  
**Subject:** RE: Conference Call ref. Purchases

Hi Jen,

This is opposite from the phone conversation I just had with Jeanette Doll and emails that FEMA will be taking over the water bottles. We have several orders pending with VWR for bottles, some shipping Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

### **Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

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**Sent:** Wednesday, January 20, 2016 9:26 AM  
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**Subject:** Conference Call ref. Purchases

Can we have a conference call today to discuss? As far as purchasing goes. The lab is still making all of their purchases. This includes test bottles, labels, etc. as this is an activity being conducted for DEQ, not a provision of life services to the public. At times the SEOC rep is involved because it is after hours, on a weekend or like this week, a holiday where shipping needed to be expedited. We should not run into this problem again from here on out as we have provided clearer direction to Command Staff in the SEOC on our target numbers per George Krisztian.

All billing should still be going through the laboratory or RRD as always. If we need resources that our vendors cannot supply then we get with DTMB and possibly FEMA. We should be getting more direction here today on what and when FEMA will be integrating.

F/Lt. Jen Wolf  
SEOC OPS Health and Env MDEQ  
SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 2:24 PM  
**To:** Cook, Rebecca (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB)  
**Subject:** RE: New Cell phone request - related to State emergency

**Importance:** High

I'll need the forms by 3:00 if I'm going to be able to get the order in on time for shipping tonight.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:26 PM  
**To:** Hummel, Mindy (DTMB) <HummelM@michigan.gov>  
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**Subject:** RE: New Cell phone request - related to State emergency

Downtown. Constitution Hall  
First Floor, North Tower  
Procurement is off of the main entrance lobby.  
Both are by Pillar Q2

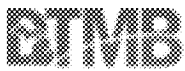
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No problem at all.

Are they located downtown or Secondary?

Mindy Hummel  
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**HELP. CONNECT. SOLVE.**

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Definite yes on that.

Knew I could count on you -- thanks a million Mindy!

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Will they need access to mail, contacts and calendar?

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**Subject:** RE: New Cell phone request - related to State emergency

Melissa can you please coordinate? Please interrupt leadership in any meeting for any signatures needed.  
Thank you.

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**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 11:59 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Attached is the form that will need to be completed for both users. The devices available are:

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Once it has signed approval, please e-mail the form to me and I'll get them ordered.

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**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Re: New Cell phone request - related to State emergency

Steve Rigg and Melissa Sambiagio

I'm in meetings and Melissa will work with you to get any forms filled out, coordinate our sign offs etc.

Thanks for checking on that

On Jan 21, 2016, at 11:17 AM, Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)> wrote:

Hi Rebecca:  
Yes, I'd be happy to help.

Who are they for? I'll need to check to make sure this isn't something that should be processed through Infrastructure Security as they have already purchased devices for this project.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image003.png>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:49 AM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>; Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>  
**Cc:** Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** New Cell phone request - related to State emergency

Mindy



Our cell phone coordinator Kelly is out sick today. Jeff Wellman asked me to check into getting two of our buyers State phones while they are involved in supporting the Emergency Ops Center/Flint.

Can you help me through basics to get rough numbers? Appreciate any assistance you can provide.

Rebecca Cook  
State of Michigan  
DTMB Procurement  
Commodities Division Director  
517-284-7008



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---

**From:** Wellman, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 10:41 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Melissa, thank you very much for volunteering – it is greatly appreciated.

Rebecca - can we get Melissa a state phone?

Jeff W.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:38 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Cc:** Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>  
**Subject:** FW: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

FYI – no action needed.

Just wanted to share we have a second staffer stepping up and delivering great customer service related to Flint. Melissa has volunteered to take phone questions related to water sampling bottles during the SEOC hours of 8 am to 8 pm. Or whenever the phone rings.

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Thursday, January 21, 2016 10:22 AM  
**To:** Wolf, Jennifer (DNR) <[WOLFJ1@michigan.gov](mailto:WOLFJ1@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Campbell, Mary Jo (DEQ) <[CAMPBELLM3@michigan.gov](mailto:CAMPBELLM3@michigan.gov)>; Austin, Dawn (DEQ) <[AUSTIND3@michigan.gov](mailto:AUSTIND3@michigan.gov)>; Smith, Carol (DEQ)

<SMITHC@michigan.gov>; Pieper, Julia (DEQ) <PIEPERJ2@michigan.gov>; Christensen, Christen (DEQ) <CHRISTENSENC@michigan.gov>; Doll, Jeanette (DTMB) <dollj@michigan.gov>; Shane, Kirby (DEQ) <SHANEK@michigan.gov>; Lundy, Anastasia (DEQ) <LundyA1@michigan.gov>; Adelman, Mitch (DEQ) <ADELMANM@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>

**Subject:** Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Hi Jen,

As we discussed in our conference call, Melissa Sambiagio and I are the points of contact to order water testing bottles or any supplies necessary for the laboratory related to Flint. All individuals listed above are to be copied on any order request. In the event of an after office hours need, we can be reached as follows:

Tara Premoe	517-749-0796	Office hours 7:30 am to 4:00 pm
Melissa Sambiagio	517-404-0000	Office hours 7:30 am to 4:00 pm

After office hours contact by phone will be necessary, as neither of us have a state issued phone for which we receive email communications. Once we receive a phone alert, we can access email to determine the course of action.

In order to avoid the enormous shipping costs for overnight delivery of water testing bottles, please keep us apprised on the status of inventory and anticipated need.

Thank you.

### **Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

### **Melissa Sambiagio**

DTMB, Commodities Division  
PH: (517) 284-7016  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)

**Sent:** Wednesday, January 20, 2016 3:12 PM

**To:** Shane, Kirby (DEQ); Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ); Cook, Rebecca (DTMB)

**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)

**Subject:** RE: Conference Call ref. Purchases

Follow up to today's conference call:

Bottle orders may be requested by Mitch Adelman & Jen Wolf via their state email address or the MSP-EOC-MDEQ address to Tara Premoe & Melissa Sambiagio with a copy to Kirby.

The address for the warehouse is Dell Warehouse, 4315 N Clio Rd, Flint, MI 48504

---

**From:** Shane, Kirby (DEQ)

**Sent:** Wednesday, January 20, 2016 9:59 AM

**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ)

**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ);

Pieper, Julia (DEQ)

**Subject:** RE: Conference Call ref. Purchases

Can we conference call at 12:30 today to discuss this? I don't know how to setup a conference call from here, but if everyone is on board and someone can set up the call and distribute the call in number to the group that would be great!

Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shanek@michigan.gov](mailto:shanek@michigan.gov)  
517.335.9888

---

**From:** Premoe, Tara (DEQ)

**Sent:** Wednesday, January 20, 2016 9:52 AM

**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)

**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ);

Pieper, Julia (DEQ)

**Subject:** RE: Conference Call ref. Purchases

Please see the email from yesterday afternoon, response from Jeanette Doll. FEMA is listed as taking over "collection bottles for water testing." This was also discussed in my phone discussion with her this morning.

**Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)

**Sent:** Wednesday, January 20, 2016 9:48 AM

**To:** Lundy, Anastasia (DEQ); Premoe, Tara (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)

**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)

**Subject:** RE: Conference Call ref. Purchases

Ah... I see where the confusion lies. They have taken over purchases of **Drinking Water**. Not test kit bottles.

---

**From:** Lundy, Anastasia (DEQ)

**Sent:** Wednesday, January 20, 2016 9:33 AM

**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)

**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)

**Subject:** RE: Conference Call ref. Purchases

(Including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*  
*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*

Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)

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Hi Jen,

This is opposite from the phone conversation I just had with Jeanette Doll and emails that FEMA will be taking over the water bottles. We have several orders pending with VWR for bottles, some shipping Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

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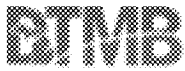
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**Cc:** Cook, Rebecca (DTMB);Sambiagio, Melissa (DTMB);Maynard, Sharon (DTMB)  
**Subject:** RE: New Cell phone request - related to State emergency

Great thanks Jeff.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

---

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**Cc:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>  
**Subject:** Re: New Cell phone request - related to State emergency

Mindy, I just signed off on them.

Sent from my iPhone

On Jan 21, 2016, at 2:24 PM, Hummel, Mindy (DTMB) <HummelM@michigan.gov> wrote:

I'll need the forms by 3:00 if I'm going to be able to get the order in on time for shipping tonight.

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Knew I could count on you -- thanks a million Mindy!

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**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
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Samsung Galaxy S5 - \$99.99

Once it has signed approval, please e-mail the form to me and I'll get them ordered.

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 11:21 AM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Re: New Cell phone request - related to State emergency

Steve Rigg and Melissa Sambiagio

I'm in meetings and Melissa will work with you to get any forms filled out, coordinate our sign offs etc.

Thanks for checking on that

On Jan 21, 2016, at 11:17 AM, Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)> wrote:

Hi Rebecca:  
Yes, I'd be happy to help.

Who are they for? I'll need to check to make sure this isn't something that should be processed through Infrastructure Security as they have already purchased devices for this project.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image003.png>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:49 AM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>; Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>  
**Cc:** Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** New Cell phone request - related to State emergency

Mindy

Our cell phone coordinator Kelly is out sick today. Jeff Wellman asked me to check into getting two of our buyers State phones while they are involved in supporting the Emergency Ops Center/Flint.

Can you help me through basics to get rough numbers? Appreciate any assistance you can provide.

Rebecca Cook  
State of Michigan  
DTMB Procurement  
Commodities Division Director  
517-284-7008

<image001.gif>

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**From:** Wellman, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 10:41 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Melissa, thank you very much for volunteering -- it is greatly appreciated.

Rebecca - can we get Melissa a state phone?



Jeff W.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:38 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Cc:** Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>  
**Subject:** FW: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

FYI -- no action needed.

Just wanted to share we have a second staffer stepping up and delivering great customer service related to Flint. Melissa has volunteered to take phone questions related to water sampling bottles during the SEOC hours of 8 am to 8 pm. Or whenever the phone rings.

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Thursday, January 21, 2016 10:22 AM  
**To:** Wolf, Jennifer (DNR) <[WOLFJ1@michigan.gov](mailto:WOLFJ1@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Campbell, Mary Jo (DEQ) <[CAMPBELLM3@michigan.gov](mailto:CAMPBELLM3@michigan.gov)>; Austin, Dawn (DEQ) <[AUSTIND3@michigan.gov](mailto:AUSTIND3@michigan.gov)>; Smith, Carol (DEQ) <[SMITHC@michigan.gov](mailto:SMITHC@michigan.gov)>; Pieper, Julia (DEQ) <[PIEPERJ2@michigan.gov](mailto:PIEPERJ2@michigan.gov)>; Christensen, Christen (DEQ) <[CHRISTENSENC@michigan.gov](mailto:CHRISTENSENC@michigan.gov)>; Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Shane, Kirby (DEQ) <[SHANEK@michigan.gov](mailto:SHANEK@michigan.gov)>; Lundy, Anastasia (DEQ) <[LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)>; Adelman, Mitch (DEQ) <[ADELMANM@michigan.gov](mailto:ADELMANM@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Hi Jen,

As we discussed in our conference call, Melissa Sambiagio and I are the points of contact to order water testing bottles or any supplies necessary for the laboratory related to Flint. All individuals listed above are to copied on any order request. In the event of an after office hours need, we can be reached as follows:

Tara Premoe	517-749-0796	Office hours 7:30 am to 4:00 pm
Melissa Sambiagio	517-404-0000	Office hours 7:30 am to 4:00 pm

After office hours contact by phone will be necessary, as neither of us have a state issued phone for which we receive email communications. Once we receive a phone alert, we can access email to determine the course of action.

In order to avoid the enormous shipping costs for overnight delivery of water testing bottles, please keep us apprised on the status of inventory and anticipated need.

Thank you.

**Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

**Melissa Sambiago**

DTMB, Commodities Division  
PH: (517) 284-7016  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

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**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 3:12 PM  
**To:** Shane, Kirby (DEQ); Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ); Cook, Rebecca (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Follow up to today's conference call:

Bottle orders may be requested by Mitch Adelman & Jen Wolf via their state email address or the MSP-EOC-MDEQ address to Tara Premoe & Melissa Sambiagio with a copy to Kirby.

The address for the warehouse is Dell Warehouse, 4315 N Clio Rd, Flint, MI 48504

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**From:** Shane, Kirby (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:59 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Can we conference call at 12:30 today to discuss this? I don't know how to setup a conference call from here, but if everyone is on board and someone can set up the call and distribute the call in number to the group that would be great!

Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shanek@michigan.gov](mailto:shanek@michigan.gov)  
517.335.9888

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:52 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Please see the email from yesterday afternoon, response from Jeanette Doll. FEMA is listed as taking over "collection bottles for water testing." This was also discussed in my phone discussion with her this morning.

## **Tara Premoe**

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:48 AM  
**To:** Lundy, Anastasia (DEQ); Premoe, Tara (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Ah... I see where the confusion lies. They have taken over purchases of **Drinking Water**. Not test kit bottles.

---

**From:** Lundy, Anastasia (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:33 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

(Including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*  
*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:32 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB)  
**Subject:** RE: Conference Call ref. Purchases

Hi Jen,

This is opposite from the phone conversation I just had with Jeanette Doll and emails that FEMA will be taking over the water bottles. We have several orders pending with VWR for bottles, some shipping Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

## **Tara Premoe**

Administration

Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:26 AM  
**To:** Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Subject:** Conference Call ref. Purchases

Can we have a conference call today to discuss? As far as purchasing goes. The lab is still making all of their purchases. This includes test bottles, labels, etc. as this is an activity being conducted for DEQ, not a provision of life services to the public. At times the SEOC rep is involved because it is after hours, on a weekend or like this week, a holiday where shipping needed to be expedited. We should not run into this problem again from here on out as we have provided clearer direction to Command Staff in the SEOC on our target numbers per George Krisztian.

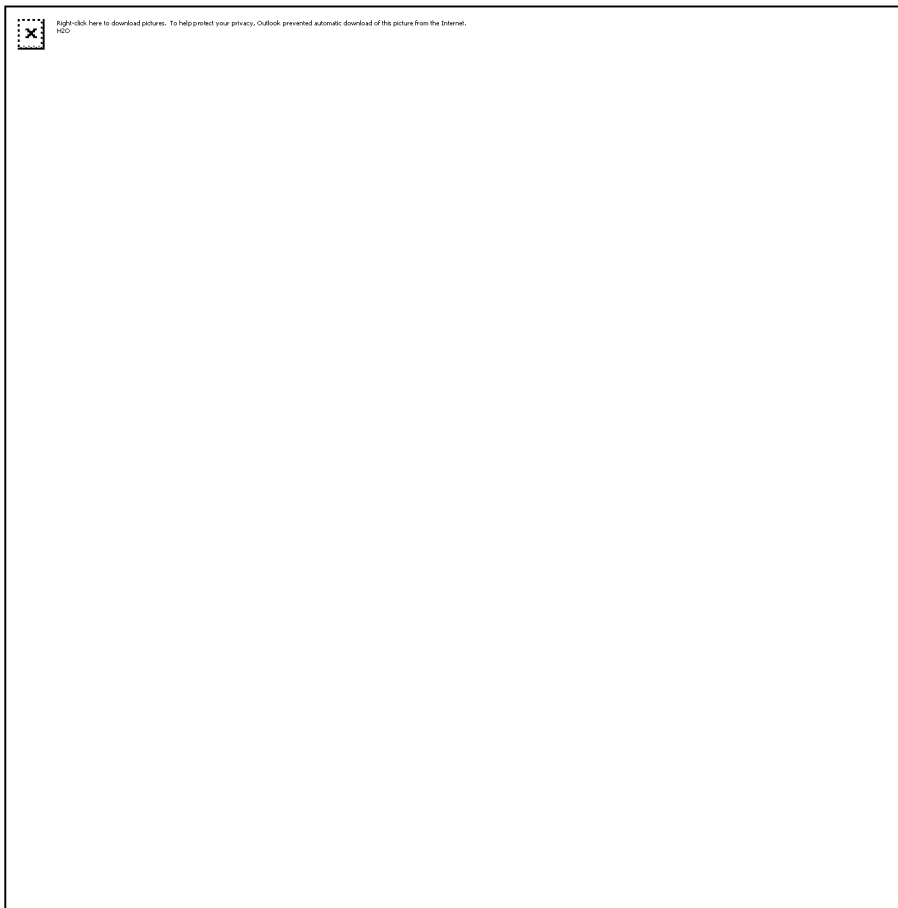
All billing should still be going through the laboratory or RRD as always. If we need resources that our vendors cannot supply then we get with DTMB and possibly FEMA. We should be getting more direction here today on what and when FEMA will be integrating.

F/Lt. Jen Wolf  
SEOC OPS Health and Env MDEQ  
SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)

**From:** Dept. Technology, Management & Budget <dtmb@govsubscriptions.michigan.gov>  
**Sent:** Tuesday, January 26, 2016 8:39 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Contributing time, muscle and money



During this month's Martin Luther King Jr. holiday weekend, some state employees turned their "day off" into a "day on" in Flint. There, they delivered bottled water, water filters, replacement cartridges and water testing kits to families. The volunteers joined other Michiganders, turning Dr. King's birthday observance into a day of service.



Mike Zimmer, director of the Office of Good Government and the Department of Licensing and Regulatory Affairs, has shared a link – [www.helpforflint.com](http://www.helpforflint.com) – that offers other opportunities to contribute time, muscle and money to bring clean drinking water to the community. Here in DTMB, some of our employees didn't wait for an invitation to lend a hand. Office of Retirement Services staff contributed funds that were used to buy 31 cases and 23 gallons of water, which a local organization transported to Flint.

Autumn Hubbard, Ambrea Mack and Sarah Esquivel, who are in the photo at the left, nearly emptied the shelves at their local grocery store. Thanks for your efforts.

everyone.

Now work.

Last week, I signed a new policy that formalizes the annual employee review process and sets expectations for employees and managers. [Administrative Policy 200.37](#) establishes consistent standards for implementing performance plans and reviews. Some of the standards are practices we have followed for years. Others are new. Some of particular note include:

- The mandatory use of HRMN
- A standard Feb. 1-Jan. 31 rating period for all employees
- An Individual Development Plan that specifies training or development programs for each employee
- Competencies and objectives that align to DTMB goals or scorecard metrics
- Consequences for managers and supervisors who do not complete the review process as required

A fundamental role of each DTMB manager or supervisor is to provide employees with direction and feedback on their performance. Employees also are expected to take an active role in pursuing professional development opportunities and achieving their competencies and objectives. I encourage you to review the new policy and talk with your manager or supervisor if you have questions. Of course, I welcome your questions and input as well. Please send your comments and ideas to me at [behend@michigan.gov](mailto:behend@michigan.gov).

I know these have been busy weeks for many of you as you take on additional responsibilities and work hard to provide resources and services for our customers and citizens across the state. Please know that your hard work has not gone unnoticed. Thank you for everything you do, every day.

Have a great week,

David



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The Department of Technology, Management and Budget

You are receiving this email because you are an employee of the Department of Technology, Management and Budget. If you have questions about your subscription, please contact [DTMB-Communications@michigan.gov](mailto:DTMB-Communications@michigan.gov).

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This email was sent to [brownisej@michigan.gov](mailto:brownisej@michigan.gov) using GovDelivery, on behalf of DTMB · Lewis Cass Building · 320 South Walnut Street  
Lansing, MI 48933 517-373-1004

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**From:** Clement, Elizabeth (GOV)  
**Sent:** Tuesday, January 26, 2016 7:40 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Re: Contact

Thanks. I appreciate it.

Sent from my iPad

On Jan 26, 2016, at 7:16 PM, Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)> wrote:

I'll reach out. Thanks.

We just awarded a contract for the same type of model for IT temp staff. So, we're certainly familiar with and like the model.

---

**From:** Clement, Elizabeth (GOV)  
**Sent:** Tuesday, January 26, 2016 5:22 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Contact

Jeff,

I spoke with the gentleman below and think it may be worthwhile for you to follow up with him and see if he offers any products/services that could be beneficial to the state. Let me know how the conversation goes and if there is anything here.

Thanks!

Beth

Beth,

It's so nice to meet you. Confirming Terri's email, engaged with 8 states and many dozen cities and municipalities, Knowledge Services specialize in cost savings and governance solutions for State and local governments.

Our technologies and services provide governments with project tracking, scheduling, service validation, governance, reporting and predictive analytics. Simply said, we bring process efficiencies and controls to large, complex and highly regulated environments. We also took note of the Flint Water circumstance and, based on the proposed solutions, believe our services may provide meaningful value. From filters to health services for citizens, significant tracking and service validation, relating to a multitude of projects and expenditures, are likely required. We would welcome the opportunity to explore the degree to which our services might provide value.

Not directly associated with the Flint needs but along the same lines, our mobile application provides service validation for in-home health services (for both Service Providers and State FTEs). With 100% validation of services, primary motivations are typically the elimination of fraudulent billings associated with field based services.

I look forward to hearing back from you or whomever you may feel might be most appropriate. I suspect there is a strong sense of urgency but will also be in DC for the RGA conference February 18<sup>th</sup> - 21<sup>st</sup>.

Thanks in advance for your consideration. Wishing you warm wishes on this cold January day!

Sincerely,

Joe Bielawski  
President  
Knowledge Services / dotStaff  
317.806.6199 (office)  
317.490.9071 (cell)



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**From:** Lin Guo <ag@bluewater.se>  
**Sent:** Tuesday, January 26, 2016 7:56 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Re: Bluewater Water Purification System for Flint Michigan

Hi Jeff,

Thanks for your email. Yes today I finally got contact with Rebecca and she will help forwarding the email to the right person. But still, thank you very much for replying my email. We really want to see how to help Flint.

Thanks again and have a great evening!

Best Regards  
Lin

Lin Guo  
National Sales Representative | Bluewater USA Inc.  
Tel: +1 844 225 8392 (1-844-2Bluewater)  
Cell: +1 913 593 3115 E: [ag@bluewatergroup.com](mailto:ag@bluewatergroup.com)  
7603 W 145th Terrace, Overland Park, Kansas 66223, USA  
Headquarter:  
Bluewater Group  
Danderydsgatan 11, 114 26 Stockholm, Sweden  
[www.bluewatergroup.com](http://www.bluewatergroup.com)  
Turning tap water into healthier drinking water.

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**From:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Date:** Tuesday, January 26, 2016 6:52 PM  
**To:** Lin Guo <[ag@bluewater.se](mailto:ag@bluewater.se)>  
**Subject:** RE: Bluewater Water Purification System for Flint Michigan

I believe you have been in contact with Rebecca Cook. Please let me know if I have that wrong. She's the right person, at least as an initial contact.

Thanks,  
Jeff

---

**From:** Lin Guo [<mailto:ag@bluewater.se>]  
**Sent:** Monday, January 25, 2016 5:22 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Bluewater Water Purification System for Flint Michigan

Hi Jeff,

I am writing this email to check whom I should contact for Flint water crisis.

Bluewater donated two Reverse Osmosis Water Purification System and local residents already start to use pure water from our machine. The one at Catholic Charities serve 1000 meals everyday and they kitchen use our machine to prepare food there.

We would like to know if there is any chance that Michigan government can purchase more these machines for Flint, we got many emails from journalists ask if we can help, some schools kitchen are forced to use bottle water to prepare for food. One Pro reverse osmosis water purifier can produce 52 gallon pure water per hour, which can help 2700 people with 2 Liter pure clean water, you can save 4800 of 1 liter bottles for environment. Meanwhile, its professional Model for restaurant ,hotel and hospital to use. It is direct flow and doesn't need water storage tank, products are made in Sweden . Once you open faucet it is 24 hours pure water. If government can purchase 38 these machines install at public area, it can help Flint residents survive with pure water every day. We have warehouse in Kansas City can ship to Flint the second day.

Please let me know whom I can follow up or contact for this case. We want to help Flint and will look forward to hearing from you soon. To know us more, please visit <http://www.bluewatergroup.com>

Below are two contacts you can reach out to check the water quality before/after with Bluewater water purifier.

Location 1 we donated:

Liz Ruediger  
Director of Operations & Development  
Shelter of Flint  
605 N. Saginaw Street, Suite 2A  
Flint, MI 48502  
810-600-4537

Location 2 we donated:

Shegos, Sheila <[sshegos@ccsgc.org](mailto:sshegos@ccsgc.org)>  
810 232 9950 ext. 325  
Catholic Charities of Shiawassee  
and Genesee Counties  
901 Chippewa St.  
Flint, MI 48503

Look forward to hearing from you soon. Thanks!

Best Regards

Lin

Lin Guo  
National Sales Representative | Bluewater USA Inc.  
Tel: +1 844 225 8392 (1-844-2Bluewater)  
Cell: +1 913 593 3115 E: [ag@bluewatergroup.com](mailto:ag@bluewatergroup.com)  
7603 W 145th Terrace, Overland Park, Kansas 66223, USA  
Headquarter:  
Bluewater Group  
Danderydsgatan 11, 114 26 Stockholm, Sweden  
[www.bluewatergroup.com](http://www.bluewatergroup.com)  
Turning tap water into healthier drinking water.

Message

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**Sent:** 1/26/2016 8:06:50 PM  
**To:** Maynard, Sharon (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e8d9eea0f0574c20b7001cc7f70a5771-Maynard Sharon]; Cook, Rebecca (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2c072214bc9f472783db4bb8c06df01c-Cook Rebecca]; Pemble, William (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8416194cabb649d8a5702d27a11ad167-Pemble William]; Falik, Tom A. (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a2f584856dc2416b8cf9d1b5a5821653-Falik Tom A.]  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Please let all of our teams know that David Hatch is the lead for us on all things Flint when it comes to stuff like that below. We still want folk

**From:** Rigg, Steve (DTMB)  
**Sent:** Monday, January 25, 2016 10:33 AM  
**To:** Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>  
**Cc:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Thompson, Sheryl D. (DHHS) <ThompsonS2@michigan.gov>; Sanford, Jeffery (DHHS) <SanfordJ3@michigan.gov>; Christensen, Chris (DTMB) <christensenc4@michigan.gov>; Doll, Jeanette (DTMB) <dollj@michigan.gov>  
**Subject:** RE: Flint Issue Questions from DTMB Procurement

Kim,

I am not the correct person to answer any questions regarding FEMA and the financials of it all. The filters that FEMA is ordering are being delivered to the warehouse on Clio Rd. David from Home Depot is tracking what FEMA has ordered on a separate spreadsheet.

Chris Christensen,

Can you help answer Kim's question regarding FEMA billing and reimbursement?

*Steve Rigg*

Buyer, Commodities Division

DTMB-Procurement

(517)284-7043

[RiggS@michigan.gov](mailto:RiggS@michigan.gov)



HELP. CONNECT. SOLVE.

**From:** Stephen, Kimberly (DHHS)

**Sent:** Monday, January 25, 2016 10:12 AM

**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Cc:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Thompson, Sheryl D. (DHHS) <[ThompsonS2@michigan.gov](mailto:ThompsonS2@michigan.gov)>; Sanford, Jeffery (DHHS) <[SanfordJ3@michigan.gov](mailto:SanfordJ3@michigan.gov)>

**Subject:** Re: Flint Issue Questions from DTMB Procurement

Awesome! Jeff Sanford is the right person to be working on the invoices. He and I had several conversations on Friday and will continue to work together on the reconciliation.

Appreciate the FEMA the update. It is so very helpful. Do we know where the FEMA filters are being delivered and if/how the receipt of the filters is being tracked? I assume that DHHS will at some point will receive a billing for 25% of the FEMA filter bill so I want to ensure we are tracking receipt of the product. Do we have any confirmation on how the financial reimbursement to FEMA will work? If you are not the correct person to answer these questions, please point me in the right direction.

Sent from my iPad

On Jan 25, 2016, at 8:55 AM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

Kim,

There wasn't an actual meeting with Home Depot and DHHS. Last week on Thursday I sent all the receipts and invoices from Home Depot to Jeff Sanford at DHHS. I got Jeff connected with David Khanuja from Home Depot and they have been working through those invoices and Jeff is consolidating that information.

**FEMA** – FYI. I have been informed from Home Depot that someone from FEMA ordered approximately \$330,000 worth of filters last week and approximately another \$1,000,000 worth of filters on Saturday night.

*Steve Rigg*

Buyer, Commodities Division

DTMB-Procurement

(517)284-7043

[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

<image002.png>

**From:** Cook, Rebecca (DTMB)

**Sent:** Monday, January 25, 2016 6:22 AM

**To:** Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>

**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Subject:** Re: Flint Issue Questions from DTMB Procurement

Kim - Will do.

Steve - can you please let Kim know which DHHS employees were present at the last Home Depot meeting, and copy her on emails relative to invoices in the future? Thank you for this and all of your hard work.

On Jan 24, 2016, at 9:08 PM, Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)> wrote:

Thank you for the reply tonight. I am not expecting assistance in formulating a response to MSP but rather wanted to make you aware of the request to avoid duplicate reporting. There are many people involved and it is very confusing as to who is responsible for what. The more we can keep the lines of communications open the better. Please include DHHS in any meeting on Home Depot invoice payments since we will be ultimately responsible. We can talk in more detail on Monday.

Sent from my iPhone

On Jan 24, 2016, at 8:24 PM, Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)> wrote:

Kim

To clarify, DTMB Procurement is not in a position to track usage and spend, so we are unable to assist in your response to MSP. Please work with Jeanette and Chris. The SEOC has asked everyone to track receipts and enter them into MySims software.

Buyer Steve Rigg is involved to the extent that Home Depot is asking questions about unpaid invoices, and Steve facilitated getting invoice copies and a meeting set up. The State is running close to its account credit limit with Home Depot and needs invoices cleared for payment.

We are still seeking clarification on the new FEMA process, and anticipate more information next week.

I'm happy to talk more on Monday, but thought you may also need an immediate response.

Please call my cell for any emergency requests, instead of or in addition to email.

Rebecca

517-930-4015

On Jan 24, 2016, at 4:34 PM, Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)> wrote:

Kim Sorry just getting to Friday's emails!

I am copying Rebecca and she can comment but also be aware that we are looking to have staff coordinate with the SEOC and communication will be addressed as it is confusing. Please feel free to reach out to Chris and Jeanette at anytime tho.

---

**From:** Stephen, Kimberly (DHHS)  
**Sent:** Friday, January 22, 2016 11:09 AM  
**To:** Maynard, Sharon (DTMB)  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Hi Sharon,

Would it be possible for Rebecca to include me in her communication on this important matter? It is not clear to me from the e-mail below if she is still seeking clarification on this issue or if I should contact to Jeanette Doll and Chris Christensen myself to obtain answers.

We have received the following request from State Police for information:

**From:** MSP-seocfgc  
**Sent:** Wednesday, January 20, 2016 4:23 PM  
**To:** Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>  
**Subject:** Costs for City of Flint

Hi Susan:

Richard Thelen gave me your name as his financial point of contact at DHHS. The immediate need is information on the costs incurred by DHHS for water, water filters, and replacement cartridges. FEMA has asked for this information – even if some of the figures are an estimate – so they have a ballpark idea.

If you could get some numbers to me tomorrow, I'd appreciate it. Please include all of your costs related to Flint, including those that were paid for with the special appropriation that you received in October. I will be providing some guidance on how costs should be tracked for state disaster assistance and possible federal assistance.

If you have any questions, please let me know.

Thanks,  
Penny Burger

Michigan State Police  
Emergency Operations Center  
Financial Section Chief  
(517)336-2688

Kim

**From:** Sanches, Christine (DHHS)  
**Sent:** Thursday, January 21, 2016 1:39 PM  
**To:** Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:54 PM  
**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Sheryl likely already provided you an update, but just in case she did not...

**From:** Thompson, Sheryl D. (DHHS)  
**Sent:** Thursday, January 21, 2016 12:36 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Thelen, Richard (DHHS) <[ThelenR4@michigan.gov](mailto:ThelenR4@michigan.gov)>  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Hi Steve, in the very beginning October I would send 319 to budget to process and order products from Home Depot.

As product begin getting scarce I began working directly with David as to what we needed vs what was available etc. then I would complete the PO but budget always knew what was coming.

When SEOC and got involved Richard or Brian would ask me to order products to maintain consistency and to continue working with David.

I also have a financial specialist Jeff Sanford who works with me and prepares the 319 for processing for all the filter orders.

He received all of the invoices from Home Depot for the product that we received under our existing POs. He will go through and consolidate the product received with our tracking spreadsheet and signed 319s. Once That is completed he can create a payment voucher for Home Depot to get paid.

I also just got a message from David that he has 12,000 Brita filters available. He needs direction as to what we want.

I am not approving any orders at this time per directions that FEMA is now ordering.

I'm am available to do whatever is needed.

Sheryl Thompson  
Deputy Director of Field Operations  
Dept of Health & Human Services  
235 S. Grand Ave, Ste 1413  
Lansing, MI 48909  
517-241-5954



On Jan 21, 2016, at 11:36 AM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:  
Chris/Jeanette,

My questions only pertain to Home Depot and the procurement of water filters, bottled water, and supplies needed for repairs. I'm trying to sort out the confusion that David from Home Depot and I have regarding the procurement of these items and the processing of payments. We need to finalize a fluid process for this so that we can avoid further confusion. I want to do everything I can to help, but I first need to understand the current process so I can direct what I have control over to the right people. I don't want there to be a disruption in the incoming flow of these items.

1. What is the current process for ordering these items? David from Home Depot is currently getting calls from a minimum of 4 different people.
2. Response: Sheryl had been the lead until EOC came on board.
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4. Response: I agree
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7. If FEMA takes over, will they be paying invoices directly or will that continue to be done by the State?
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10. Right now Home Depot invoices are sent out monthly because of the 60 day terms in the contract. However, we currently have over \$10,000,000 in outstanding invoices. We had gotten CitiBank to increase our credit limit to \$10,000,000 last week. We requested CitiBank to increase the credit line to \$20,000,000, but that has not yet been approved by CitiBank. To keep the credit line open we need to turn around these invoices much quicker. Citi has an EFT program that a State designee could log into and pull invoices from immediately to get them paid. Who would be the person that Citi could set up an account with so that they could log in and download invoices for quicker processing?
11. LARA recently purchased items from Home Depot for plumbing supplies. Moving forward, if LARA is to procure any more items through Home Depot can they work directly with David from Home Depot so as to not cause any more delays?

That is all I have at this point. Thanks for any feedback.

*Steve Rigg*

Buyer, Commodities Division

DTMB-Procurement

(517)284-7043

[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

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<8970195.pdf>

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**Sent:** Tuesday, January 26, 2016 8:09 PM  
**To:** Hatch, David (DTMB)  
**Subject:** RE: Flint Issue Questions from DTMB Procurement

From: Hatch, David (DTMB)  
Sent: Tuesday, January 26, 2016 8:08 PM  
To: Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
Cc: Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>  
Subject: RE: Flint Issue Questions from DTMB Procurement

And no need for a cell phone yet. After this week I will know better what resources I need.

From: Brownlee, Jeff (DTMB)  
Sent: Tuesday, January 26, 2016 7:58 PM  
To: Hatch, David (DTMB) <HatchD@michigan.gov>  
Cc: Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>  
Subject: RE: Flint Issue Questions from DTMB Procurement

Just seeing this, David. I'm sorry. Feel free to txt me anytime. It's the best way to get me. Do you still need help?

Is there value in getting you a state iphone during this? If yes, please let Melissa know (cc'd).

From: Hatch, David (DTMB)  
Sent: Monday, January 25, 2016 1:56 PM  
To: Sharon Maynard <ssmaynard@hotmail.com>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
Subject: FW: Flint Issue Questions from DTMB Procurement

Can you get me on this email chain, or at least get me introduced to Penny? After talking to Chris Christensen and his guy Ryan, they told me Penny is the person I should start with.

I feel urgency about my request to her, but I don't know if she does. Your help would be appreciated.

Thanks,  
Dave

From: Rigg, Steve (DTMB)  
Sent: Monday, January 25, 2016 1:51 PM  
To: Hatch, David (DTMB) <HatchD@michigan.gov>  
Subject: FW: Flint Issue Questions from DTMB Procurement

I'm sure you'll get this sent to you a few times, but a lot of our questions are answered in this email.

Steve Rigg  
Buyer, Commodities Division  
DTMB-Procurement

(517)284-7043  
RiggS@michigan.gov

From: MSP-seocfgc

Sent: Monday, January 25, 2016 1:31 PM

To: Doll, Jeanette (DTMB) <dollj@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Thompson, Sheryl D. (DHHS) <ThompsonS2@michigan.gov>; Sanford, Jeffery (DHHS) <SanfordJ3@michigan.gov>; Thelen, Richard (DHHS) <ThelenR4@michigan.gov>

Cc: Burger, Penelope (MSP) <BurgerP@michigan.gov>

Subject: RE: Flint Issue Questions from DTMB Procurement

I will do what I can to address some of these questions.

- 1) Since FEMA arrived on-site in the SEOC, they have been procuring the water resources made available through the federal emergency declaration; water, faucet filters, replacement cartridges, filtered pitchers and water testing kits. If going through an established state contract gets a better price, that is how they are ordering items. If they have a better deal or resource, that is what they do.
- 2) All resources are being delivered to the warehouse located at 4315 N. Clio Road in Flint. Michigan Department of Corrections has warehouse management staff in place to manage the warehouse operations. Receipt of all resources, regardless of who ordered them, is being checked in to the warehouse with packaging slips and I have copies of the FEMA order form as well. We don't do anything special with FEMA purchased resources.
- 3) The State of Michigan has a 25% match requirement for the FEMA dollars spent. DHHS will not get a bill for 25% of anything from FEMA. I work directly with FEMA on the finances through EMHSD as the State Financial Officer, and at this point we have FEMA assistance for 90 days. We are nowhere close to getting a bill from FEMA yet and that is something that I will take care of working with the State Budget Office as needed. I have never sent a bill for match to another state agency.
- 4) At this point in time, we only have a federal declaration of emergency that brings FEMA procured resources for 90 days beginning on the date of declaration, which was January 16, 2016. We don't have any other federal awards that would allow for reimbursement of items purchased before the federal declaration. We have a few requests out at the federal level, but it is a long process and there are no guarantees. Our guarantee is that FEMA will buy water and filters for 90 days.

What I need from state agency financial staff are current expenditures for costs for their own agency on a weekly basis so I can update the State Director here in the SEOC. Costs need to be directly related to the emergency, such as staff overtime in the SEOC or in the field responding to the event, contracts required for response, purchases for items necessary for use in the emergency response – water, filters, computers for field teams, etc, and fuel for vehicles. This is not an exhaustive list, but gives you the main items. And we have processes in place here in the SEOC for requesting resources to ensure that all items purchased are approved by SEOC command.

I hope this has answered some questions. The biggest assistance a state agency can provide from a financial aspect is weekly updated reports. If you still have questions, please let me know.

Penny Burger  
State Financial Officer  
State Emergency Operations Center  
MSP/EMHSD  
517-336-2688

From: Doll, Jeanette (DTMB)  
Sent: Monday, January 25, 2016 11:41 AM  
To: Burger, Penelope (MSP); MSP-seocfgc  
Subject: FW: Flint Issue Questions from DTMB Procurement

Penny –

Could someone in your shop assist DHHS with their questions below?

Jeanette

From: Stephen, Kimberly (DHHS)  
Sent: Monday, January 25, 2016 10:12 AM  
To: Rigg, Steve (DTMB) <RiggS@michigan.gov>  
Cc: Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Thompson, Sheryl D. (DHHS) <ThompsonS2@michigan.gov>; Sanford, Jeffery (DHHS) <SanfordJ3@michigan.gov>  
Subject: Re: Flint Issue Questions from DTMB Procurement

Awesome! Jeff Sanford is the right person to be working on the invoices. He and I had several conversations on Friday and will continue to work together on the reconciliation.

Appreciate the FEMA the update. It is so very helpful. Do we know where the FEMA filters are being delivered and if/how the receipt of the filters is being tracked? I assume that DHHS will at some point will receive a billing for 25% of the FEMA filter bill so I want to ensure we are tracking receipt of the product. Do we have any confirmation on how the financial reimbursement to FEMA will work? If you are not the correct person to answer these questions, please point me in the right direction.

Sent from my iPad

On Jan 25, 2016, at 8:55 AM, Rigg, Steve (DTMB) <RiggS@michigan.gov> wrote:  
Kim,

There wasn't an actual meeting with Home Depot and DHHS. Last week on Thursday I sent all the receipts and invoices from Home Depot to Jeff Sanford at DHHS. I got Jeff connected with David Khanuja from Home Depot and they have been working through those invoices and Jeff is consolidating that information.

FEMA – FYI. I have been informed from Home Depot that someone from FEMA ordered approximately \$330,000 worth of filters last week and approximately another \$1,000,000 worth of filters on Saturday night.

Steve Rigg  
Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
RiggS@michigan.gov

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From: Cook, Rebecca (DTMB)  
Sent: Monday, January 25, 2016 6:22 AM  
To: Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>  
Cc: Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>;

Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>

Subject: Re: Flint Issue Questions from DTMB Procurement

Kim - Will do.

Steve - can you please let Kim know which DHHS employees were present at the last Home Depot meeting, and copy her on emails relative to invoices in the future? Thank you for this and all of your hard work.

On Jan 24, 2016, at 9:08 PM, Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov> wrote:

Thank you for the reply tonight. I am not expecting assistance in formulating a response to MSP but rather wanted to make you aware of the request to avoid duplicate reporting. There are many people involved and it is very confusing as to who is responsible for what. The more we can keep the lines of communications open the better. Please include DHHS in any meeting on Home Depot invoice payments since we will be ultimately responsible. We can talk in more detail on Monday.

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Buyer Steve Rigg is involved to the extent that Home Depot is asking questions about unpaid invoices, and Steve facilitated getting invoice copies and a meeting set up. The State is running close to its account credit limit with Home Depot and needs invoices cleared for payment.

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Rebecca

517-930-4015

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From: Stephen, Kimberly (DHHS)

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To: Maynard, Sharon (DTMB)

Subject: FW: Flint Issue Questions from DTMB Procurement

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From: MSP-seocfgc  
Sent: Wednesday, January 20, 2016 4:23 PM  
To: Kangas, Susan (DHHS) <KangasS1@michigan.gov>  
Subject: Costs for City of Flint

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Richard Thelen gave me your name as his financial point of contact at DHHS. The immediate need is information on the costs incurred by DHHS for water, water filters, and replacement cartridges. FEMA has asked for this information – even if some of the figures are an estimate – so they have a ballpark idea.

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If you have any questions, please let me know.

Thanks,  
Penny Burger

Michigan State Police  
Emergency Operations Center  
Financial Section Chief  
(517)336-2688

Kim

From: Sanches, Christine (DHHS)  
Sent: Thursday, January 21, 2016 1:39 PM  
To: Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>  
Subject: FW: Flint Issue Questions from DTMB Procurement

From: Cook, Rebecca (DTMB)  
Sent: Thursday, January 21, 2016 12:54 PM  
To: Sanches, Christine (DHHS) <SanchesC@michigan.gov>  
Subject: FW: Flint Issue Questions from DTMB Procurement

Sheryl likely already provided you an update, but just in case she did not...

From: Thompson, Sheryl D. (DHHS)

Sent: Thursday, January 21, 2016 12:36 PM

To: Rigg, Steve (DTMB) <RiggS@michigan.gov>

Cc: Doll, Jeanette (DTMB) <dollj@michigan.gov>; Christensen, Chris (DTMB) <christensenc4@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Thelen, Richard (DHHS) <ThelenR4@michigan.gov>

Subject: Re: Flint Issue Questions from DTMB Procurement

Hi Steve, in the very beginning October I would send 319 to budget to process and order products from Home Depot.

As product begin getting scarce I began working directly with David as to what we needed vs what was available etc. then I would complete the PO but budget always knew what was coming.

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I'm am available to do whatever is needed.

Sheryl Thompson  
Deputy Director of Field Operarions  
Dept of Health & Human Services  
235 S. Grand Ave, Ste 1413  
Lansing, MI 48909  
517-241-5954

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Chris/Jeanette,

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1. What is the current process for ordering these items? David from Home Depot is currently getting calls from a minimum of 4 different people.



2. Response: Sheryl had been the lead until EOC came on board.
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That is all I have at this point. Thanks for any feedback.

Steve Rigg  
Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
RiggS@michigan.gov

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, January 27, 2016 1:51 PM  
**To:** Weiss, Kurt (DTMB)  
**Cc:** Riehle, Jenni (DTMB);Brownlee, Jeff (DTMB)  
**Subject:** RE: Next Step

Thanks!

---

**From:** Weiss, Kurt (DTMB)  
**Sent:** Wednesday, January 27, 2016 1:44 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** RE: Next Step

Tori is not back from Flint yet, but I talked with Caleb. He is going to call you with an idea.

Kurt Weiss  
State Budget Office  
517-335-0050



---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, January 27, 2016 1:22 PM  
**To:** Weiss, Kurt (DTMB)  
**Subject:** FW: Next Step  
**Importance:** High

---

**From:** MSP-EOC-MDTMB  
**Sent:** Wednesday, January 27, 2016 11:01 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** MSP-EOC-MDTMB <[MSP-EOC-MDTMB@michigan.gov](mailto:MSP-EOC-MDTMB@michigan.gov)>  
**Subject:** FW: Next Step  
**Importance:** High

Rebecca --

We received the following email and would like to make sure we are providing accurate information. Please review and we can talk.

Jeanette

---

**From:** MSP-SEOCPIO  
**Importance:** High

Can you check with DTMB on this. Tori Sachs with the Gov's Office was considering adding a button on [www.helpforflint.com](http://www.helpforflint.com) to capture vendors who want to pitch their product/idea; however, last I talked with her, there were concerns about violating state procurement processes.

Maybe DTMB has an email account already established for people who want to do business with the state? This is what FEMA has on their website for disasters.

Seems to me this should be handed off to DTMB procurement for a solution.

---

**From:** DeVriendt, Chris [CDeVriendt@co.genesee.mi.us]  
**Sent:** Wednesday, January 27, 2016 7:33 AM  
**To:** JICManager; MSP-seodlgc; Adelman, Mitch (DEQ)  
**Cc:** Kuzera, Michelle (MSP); Ducharme, Mark (DEQ)  
**Subject:** FW: Next Step

Can someone please address this. If there is going to be zero communication with 'vendors', then there needs to be a canned response indicating such. I spend an inordinate amount of time with these missives as they are coming into my work e-mail, calling the LEOC phones, and showing up at the LEOC doorstep pitching their solutions because nobody is communicating with them.

Chris DeVriendt, LVT, MPH  
Emergency Management Manager  
Office of Genesee County Sheriff  
Emergency Management Homeland Security Division  
1002 South Saginaw Street  
Flint, MI 48502  
(810) 257-3064(direct)  
(810) 237-6169 (fax)  
[cdevriendt@co.genesee.mi.us](mailto:cdevriendt@co.genesee.mi.us)

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, January 27, 2016 1:58 PM  
**To:** Doll, Jeanette (DTMB)  
**Cc:** Brownlee, Jeff (DTMB)  
**Subject:** Re: Bluewater water purifiers help Flint

Jeanette

Will they assign someone to call these two entities today and inform them?

Rebecca

On Jan 27, 2016, at 1:31 PM, Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)> wrote:

Rebecca – Please see note below. I will share with Logistics Chief!

---

**From:** MSP-EOC-MDEQ  
**Sent:** Wednesday, January 27, 2016 12:43 PM  
**To:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>  
**Cc:** MSP-EOC-MDTMB <[MSP-EOC-MDTMB@michigan.gov](mailto:MSP-EOC-MDTMB@michigan.gov)>  
**Subject:** RE: Bluewater water purifiers help Flint

<https://www.wqa.org/Find-Products#/keyword/bluewater>

The Bluewater filters are not NSF/ANSI 53 for lead reduction.

F/Lt Jen Wolf  
SEOC OPS Health and Env MDEQ  
SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)

---

**From:** Doll, Jeanette (DTMB)  
**Sent:** Wednesday, January 27, 2016 9:46 AM  
**To:** MSP-EOC-MDEQ  
**Cc:** MSP-EOC-MDTMB  
**Subject:** FW: Bluewater water purifiers help Flint

Could we have someone look into the water purifier (attached) to see if it meets NSF standards? The unit was already installed in a couple locations within Flint (below) and would like to make sure the units will not need to be replaced.

Thank you –

Jeanette

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Tuesday, January 26, 2016 6:10 PM  
**To:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>  
**Subject:** FW: Bluewater water purifiers help Flint

Jeanette

As we previously discussed, you are my contact to triage and route external inquiries. Bluewater called me this morning, and I requested an email with more information.

It is unclear to me whether this unit meets the standards used for the faucet water filter sourcing. Can a resource be identified to check? If not, someone may want to consider reaching out to the two locations that received donated units.

Thanks for routing this into the correct hands.

Rebecca

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**From:** Lin Guo [<mailto:ag@bluewater.se>]  
**Sent:** Tuesday, January 26, 2016 4:27 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Niclas Wullt <[nw@bluewater.se](mailto:nw@bluewater.se)>; David Noble <[dn@bluewater.se](mailto:dn@bluewater.se)>; Daniel Hertzberg <[dh@bluewater.se](mailto:dh@bluewater.se)>; Kim Börjesson <[kb@bluewater.se](mailto:kb@bluewater.se)>  
**Subject:** Bluewater water purifiers help Flint

Hi Rebecca,

It was nice talking to you this morning, we will appreciate if you can read this email and forward to related team who in charge of procurement for Flint water crisis.

Bluewater is a Swedish company that has innovated a patented second-generation reverse osmosis technology which turns tap water into healthier drinking water by removing up to 99% of almost all known water-borne contaminants; plus, cuts the water wastage common to traditional reverse osmosis systems by up to 82%.

Bluewater has been selling in the USA for the past 18 months, based out of Overland Park, Kansas, where we also have our warehouse that serves customers across the United States. We are a sister company to Blueair, which is one of the major air purifier companies in the United States, based out of Chicago.

Last week saw us donate and install two of our high performance water purifiers in Flint, Michigan, in response to their crisis as our water purifiers excel at removing lead and other toxic metals from residential drinking water. While we applaud people donating water bottles, it is only a short term solution, whereas as water purifiers are both a short-term and a long term solution.

One Bluewater Pro machine was installed at the Community Center at Catholic Charities of Shiawassee and Genesee Counties, where they serve 1,000 meals every day to local residents. The other unit was installed at Shelter of Flint, the largest shelter at Flint.

Both units were installed by Bluewater's Product Manager who traveled to Flint personally. FYI, many bottled water brands in the USA use reverse osmosis to purify their water. Using a Bluewater unit is a cheaper long-term option that also contributes to a better environment because they negate the need for plastic bottles as they deliver purifier water 'on demand'. (a side note, as you may already know, "Pepsi Admits That Its Aquafina Bottled Water

is Just Tap Water, Coca-Cola's Dasani Is Next" see news of today <http://healthycures.org/pepsi-admits-that-its-aquafina-bottled-water-is-just-tap-water-coca-colas-dasani-is-next>

The Bluewater Pro400 reverse osmosis water purifiers we donated to Flint can produce 52 gallons of purified water per hour, which means we can supply 2,700 people a total of two liters of clean water free of lead and other toxic metals every day. This translates into saving 4,800 one-liter bottles being put into the environment every day!

The compact Pro is designed for professional use, in restaurants, hotels, schools, hospitals and laboratories. Installing just 38 of our units in Flint would deliver the 100,000 residents two liters of totally clean water every day - meeting their basic daily human health need for drinking water.

Bluewater harnesses our own patented second-generation reverse osmosis technology, which removes practically all toxic contamination from tap drinking water including lead. The other contaminants we remove include other heavy metals, pesticides, medical residues, and dioxins and petro chemicals.

What also makes our water purifiers unique is that our unique technology ALSO radically increases the efficiency of water treatment, which translates into a Bluewater unit using 82% less water to generate clean water than a traditional reverse osmosis unit.

Reverse osmosis technology purifies water by forcing untreated water through a semi-permeable filter or 'membrane'. Bluewater membranes will block toxic metals and chemicals down to 0.0001 micron (that's 500,000 times smaller than a human hair). Our technology also delivers water 'on-demand', which means no need for a holding tank

As a business, we cannot afford to donate an endless number of units free to Flint, but due to the special nature of the situation (and the fact that most of us are parents of small children and have huge sympathy for those impacted by the crisis) we want to step up even more by offering Michigan State prices that are very substantially discounted. In fact, we want to offer you a one-off purchase opportunity that sees us offering you our products at the manufacturing price (i.e. we make no margin on the deal).

This would see the products we recommend you consider coming in at:

**Pro 400C-HF(high flow) ( this is the model we donated to Flint) \$1920 + shipping**  
(suitable for professional use, hospitals, labs, restaurant, coffee shop, office building)

- Superior Osmosis Technology
- Direct flow, no need of tank
- Capacity up to 52 gallon per hour
- Clean water delivery rate of 52 gallon per hour
- Cleaning brackish water, up to 7500 ppm
- water quality monitor
- Calibration of cleanliness
- Advanced leak protection system
- Clean water per kWh: 433L/kWh (114.3gallon/kWh)
- Clean water rate: 222L/hour (58.6 gallons/hour)

- Dimensions: 225 x 466 x 460mm (8.9 x 18.3 x 18.10 inch)
- Weight: 29kgs (64lb)
- Water recovery rate: 60-70%

The other two models we could consider as an alternative (the only difference is that the water flow is less powerful) are:

**Spirit 300-HF(high flow) \$1350 + shipping**

Compact design that fits into any contemporary kitchen

- Designed for Municipal water
- Superior Osmosis Technology
- Capacity up to 43.2 gallon per hour
- Director Flow, no need of tank
- Extra compact Design
- Advanced leak protection system
- Clean water per KWh: 377L/kWh (99.5 gallons/kWh)
- Clean water rate: of 99L/hour (26.2 gallons/hour)
- Dimensions: 150 x 462 x 365 mm( 5.9 x 18.2 x 14.4 inches)
- Weight: 15 kgs (33lb)
- Water recovery rate: 40-60%

**Spirit 300Cp-HR(high rejection) \$1500 + shipping**

Compact design that fits into any contemporary kitchen, can connect to dish washer, coffee maker, ice machine/refrigerator

- Designed for Municipal water
- Superior Osmosis Technology
- Capacity up to 43.2 gallon per hour
- Director Flow, no need of tank
- Extra compact Design
- Advanced leak protection system
- Clean water per KWh: 377L/kWh (99.5 gallons/kWh)
- Clean water rate: of 99L/hour (26.2 gallons/hour)
- Dimensions: 150 x 462 x 365 mm( 5.9 x 18.2 x 14.4 inches)
- Weight: 15 kgs (33lb)
- Water recovery rate: 40-60%

Please do not hesitate to get back if there is anything additional information you need from us. Attached is our catalog and photo how it looks in the kitchen.

Here are two reference you can contact at Flint, they are using our donated water purifiers now for producing pure water

Liz Ruediger  
 Director of Operations & Development  
 Shelter of Flint  
 605 N. Saginaw Street, Suite 2A  
 Flint, MI 48502  
 810-600-4537

Shegos, Sheila [sshegos@ccsgc.org](mailto:sshegos@ccsgc.org)  
810 232 9950  
Catholic Charities of Shiawassee and Genesee Counties  
*901 Chippewa St.*  
*Flint, MI 48503*  
[www.ccsge.org](http://www.ccsge.org)

To discover more about us at Bluewater, please visit us at [www.bluewatergroup.com](http://www.bluewatergroup.com)

I look forward to hearing from you and let's help Flint together.

Best Regards  
Lin

Lin Guo  
National Sales Representative | Bluewater USA Inc.  
Tel: +1 844 225 8392 (1-844-2Bluewater)  
Cell: +1 913 593 3115 E: [ag@bluewatergroup.com](mailto:ag@bluewatergroup.com)  
7603 W 145th Terrace, Overland Park, Kansas 66223, USA  
Headquarter:  
Bluewater Group  
Danderydsgatan 11, 114 26 Stockholm, Sweden  
[www.bluewatergroup.com](http://www.bluewatergroup.com)  
Turning tap water into healthier drinking water.  
<image661.jpg>



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**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, January 27, 2016 2:15 PM  
**To:** Doll, Jeanette (DTMB)  
**Cc:** Rigg, Steve (DTMB); Riehle, Jenni (DTMB); Brownlee, Jeff (DTMB)  
**Subject:** FW: Nephros Cartridge Filter - Flint  
**Attachments:** Nephros Release.pdf

Jeanette

Per our previous conversations, thank you for being the SEOC liaison to receive external inquiries and properly route them for evaluation.

DEQ tech staff would need to evaluate whether this filter would meet established standards prior to considering it for use.

Please let me know if SEOC has feedback as to how to handle these as more seem to be coming in.

Thanks!  
Rebecca

---

**From:** Rigg, Steve (DTMB)  
**Sent:** Wednesday, January 27, 2016 1:35 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** FW: Nephros Cartridge Filter

Just an FYI. Here is another inquiry of a sales person having filters to sell.

*Steve Rigg*

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

**BTMB**  
**HELP. CONNECT. SOLVE.**

---

**From:** Rodney Marshall [<mailto:rodney@aldevra.com>]  
**Sent:** Wednesday, January 27, 2016 12:51 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** FW: Nephros Cartridge Filter

Mr. Rigg,

I'm glad Ms. Premoe connected us! We sell Nephros filters, which are FDA approved to retain bacteria, viruses and biological toxins. Attached is more information. These filters have been installed on faucets, showerheads and ice machines in hospitals where Legionella outbreaks have occurred, and we'd like to talk with someone to see if these might be a good option for the Flint area.

Are you the right person? If so, can we take 5 minutes of your time to discuss? Also, since you're in purchasing, my company can you help attain the 5% disabled veteran business goal since I qualify.

Look forward to hearing from you!

Rodney Marshall, President & CEO

Aldevra

251 N. Rose St., Suite 200

Kalamazoo, MI 49007

wk 269-350-1337

cell 269-720-0515

fax 269-327-7392

email [rodney@aldevra.com](mailto:rodney@aldevra.com)

[www.aldevra.com](http://www.aldevra.com)

CAGE Code: 5EEK3

CVE Verified Service Disabled Veteran Owned Small Business Certified Minority Owned Enterprise Small Disadvantaged Business Visit our GSA Advantage online catalog

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**From:** Premoe, Tara (DEQ) [<mailto:PremoeT@michigan.gov>]

**Sent:** Wednesday, January 27, 2016 10:58 AM

**To:** Rodney Marshall <[rodney@aldevra.com](mailto:rodney@aldevra.com)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Subject:** RE: Nephros Cartridge Filter

Mr. Marshall,

The DEQ is not involved in the purchase of filters. I am copying the DTMB buyer on this message responsible for that area. Thank you.

**Tara Premoe**

Administration

Department of Environmental Quality

PH: (517) 284-5012

[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Rodney Marshall [<mailto:rodney@aldevra.com>]

**Sent:** Wednesday, January 27, 2016 10:50 AM

**To:** Premoe, Tara (DEQ)

**Subject:** Nephros Cartridge Filter

Ms. Premoe,

I see you're buying lab sample containers and media for bacteriological analysis of drinking water for the Department of Environmental Quality, and I wondered whether or not you were involved in procurement to help with the Flint water

situation. We want to make sure DEQ and others are aware of the Nephros filter, which is FDA approved to retain bacteria, viruses and biological toxins. Attached is more information. These filters have been installed on faucets, showerheads and ice machines in hospitals where Legionella outbreaks have occurred.

Can you please let me know who I might talk with about these filters?

Thank you,  
Rodney Marshall, President & CEO  
Aldevra  
251 N. Rose St., Suite 200  
Kalamazoo, MI 49007  
wk 269-350-1337  
cell 269-720-0515  
fax 269-327-7392  
email [rodney@aldevra.com](mailto:rodney@aldevra.com)  
[www.aldevra.com](http://www.aldevra.com)

CAGE Code: SEEK3

CVE Verified Service Disabled Veteran Owned Small Business Certified Minority Owned Enterprise Small Disadvantaged Business Visit our GSA Advantage online catalog

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## PRODUCT RELEASE NEPHROS FILTERS

### About Nephros

Nephros is a commercial stage medical device company that develops and sells high performance liquid purification filters. Nephros filters capture contaminants as small as 5 nanometers (.005 microns) in size; they minimize exposure to a wide variety of bacteria, viruses, fungi, parasites, and endotoxins.

Nephros filters use a proprietary hollow fiber technology; the hollow fiber design enables the filters to optimize the three elements critical to filter performance:

- Filtration – as low as 5 nanometers
- Flow rate – minimal disruption
- Filter life – up to 12 months

### Hospital Water Treatment

According to the American Hospital Association there are approximately 5,700 hospitals and 920,000 beds in the U.S. and the United States Centers for Disease Control and Prevention estimates that healthcare associated infections (HAI) annually account for 1.7 million infections and 99,000 deaths. HAIs affect patients in a hospital or other healthcare facilities, and are not present or incubating at the time of admission. They also include infections acquired by patients in the hospital or facility, but appearing after discharge, and occupational infections among staff. Many HAIs are waterborne bacteria and viruses that can thrive in aging or complex plumbing systems often found in healthcare facilities. The Affordable Care Act (“ACA”), which was passed in March 2010, puts in place comprehensive health insurance reforms that aim to lower costs and enhance quality of care. With its implementation, healthcare providers have substantial incentives to deliver better care or be forced to absorb the expenses associated with repeat medical procedures or complications like HAIs. As a consequence, hospitals and other healthcare facilities are proactively implementing strategies to reduce the potential for HAIs. Nephros ultrafilters are designed to aid in infection control in the hospital and healthcare setting by treating facility water just prior to it being used.

Nephros DSU-H and SSU-H Ultrafilters are FDA 510(k) cleared and are intended to be used to filter EPA quality drinking water. The filters retain bacteria, viruses and endotoxins. By providing ultrapure water for patient washing and drinking, the filters aid in infection control. The filters also produce water that is suitable for wound cleansing, cleaning of equipment used in medical procedures and washing of a surgeon’s hands. The filters are not intended to provide water that can be used as a substitute for USP sterile water.

## Feature and Benefit Comparison

	<b>Pall</b>	<b>Nephros</b>
<b>ADA Clearance</b>	Not Always	Always
<b>Removed too soon</b>	Can be	No
<b>Flow prevented when filter needs to be changed</b>	No	Yes
<b>FDA Cleared</b>	No	Yes
<b>Lasts up to 6 months</b>	No	Yes
<b>Removes Viruses</b>	No	Yes
<b>Removes to .005 microns</b>	No	Yes
<b>Cost per day</b>	1 month filter - \$2.50/day 2 month filter - \$2.00/day	DSU-H Filter - \$1.66/day SSU-H Filter - \$1.95/day
<b>Annual replacement labor</b>	1 month – 12 times per year 2 month – 6 times per year	DSU-H Filter – 2 times per year SSU-H Filter – 4 times per year

## Nephros Filter FAQs

### What does “Nephros” mean?

Nephros is “Greek” for Kidney.

### Where are Nephros products used today?

- Dialysis – Water and Bicarbonate
- Hospitals & Long Term Care facilities – Water as an aid in infection control
- Commercial & Food Services – Water for drinking & washing
- Military/Emergency/Outdoor & Recreation-Water for drinking & washing-partnered with Camelbak.

### What is the (filtration) membrane?

Nephros uses a medical grade, hollow polysulphone fiber membrane – 0.005 micron pore size.

### How does the filter work?

There are two primary filters, a single stage or “SSU-H” and a dual stage “DSU-H.” The single stage flows from inside the hollow fiber out, while the dual stage has a secondary barrier the flows outside the hollow fiber in.

### How is it made?

The fiber is extruded, then run through a proprietary process to open the pores. Then the fibers are sliced, bundled and packed into the filter casing. A polyurethane-based polymer provides the seal.

### What can the filter retain?

Nephros filters retains bacteria (11-log reduction), viruses (8-log reduction), and biological toxins (5-log reduction).

### Is it validated?

Yes, in order for Nephros to receive their FDA 510(k) clearance in both Dialysis and Hospital Water Filtration, they needed to provide 3<sup>rd</sup> party validation, which was thoroughly reviewed by the FDA.

### Is that documentation available?

Yes, they can provide the two primary studies along with the letter from the FDA.

**Can it be cleaned or disinfected?**

Nephros membranes are routinely disinfected (in dialysis) by means of Chlorination, Peracetic Acid and Heat with no detriment to the membrane.

**Is there anything that would affect this membrane?**

Ozone (sometimes used in dialysis bicarbonate delivery) is the only disinfection process that is not compatible.

**Would Chlorine Dioxide or Copper Silver cause any issues or pass through your membrane?**

Neither would have any detrimental impact and will pass through Nephros membrane.

**Do Nephros filters remove Salt or Scale?**

No, Nephros filter is a barrier for particulate (bacteria, etc.) not dissolved solids.

**What size particulate does your filter remove?**

Nephros 5 nanometer membrane is hydrophobic so it removes by size exclusion (to 5nm) and by adsorption down to 15 kilodaltons.

**How much surface area does each Nephros filter have?**

The hollow fiber offers unparalleled surface area. The SSU-H has approximately 0.9 square meters of flow area, while the DSU-H has approximately 2.9 square meters of flow area. Nephros has between 16-58 x more surface area compared to conventional micro-filters in the same space.

**What are the flow rates of the filters?**

Although it depends on the inlet pressure, the SSU-H is generally up to 1.5 gpm while the DSU-H is closer to 3gpm.

**What is the maximum operating pressure that Nephros filters will withstand?**

The maximum operating pressure for the DSU-H is 100psi, and for the SSU-H is 75psi.

**What if a building has higher pressure spikes?**

Nephros generally recommends some type of "PRV" or pressure reduction valve if the building has the potential for water pressure spikes, typically over 75psi.

**What is the longest Nephros filters will last?**

The FDA has established a maximum life of up to 90 days for our SSU-H and 180 days for our DSU-H.

**How will the customer know if they need to be changed?**

Nephros recommends changing the filter prior to their "end of life" if the flow rate does not satisfy the flow requirement.

**Has Nephros had filters that have not lasted the period?**

Yes. Turbidity of the water will have an end of life impact on any filters. If the filters do not last the full expected life, then Nephros can help diagnose the source of the particulates and recommend modifications to the building water system.

**Can we use a pre-filter to extend the life?**

Yes, that may be an option, but remember the FDA has established a maximum life (90 days for SSU-H & 180 days for DSU-H).

**Can our customer use a carbon filter with a Nephros filter for our ice machines?**

Yes, however it's important the carbon is properly flushed when it's first installed to avoid its particulate to add unnecessary particle accumulation in our filter. The carbon filter must also be installed upstream of the Nephros as it's designed to remove chemistry has the propensity to grow bacteria.

**Can Nephros filters be recycled or would it be considered medical waste?**

The capsule is made of ABS and the membrane is a thermo-plastic material, both of which are recyclable.

**Does Nephros manufacture "POU" or Point of Use filters?**

Yes, the filters are technically considered a point of use or point of delivery filter due to the proximity of their discharge to the patient or equipment.

**Is the Nephros product FDA cleared or considered a Medical Device?**

Yes, the Nephros FDA 510(k) reads as follows:

*The DSU-H and SSU-H Ultrafilters are intended to be used to filter EPA quality drinking water. The filters retain bacteria, viruses and endotoxins. By providing ultrapure water for patient washing and drinking, the filters aid in infection control. The filters also produce water that is suitable for wound cleansing, cleaning of equipment used in medical procedures and washing of surgeon's hands. The filters are not intended to provide water that can be used as a substitute for USP sterile water.*

**Are any other manufacturers FDA Cleared?**

Nephros is not aware of any other medical filter with such clearance.

**Why is the FDA Clearance so important?**

Risk mitigation

- A. The FDA oversight ensures the products meet the highest standards of performance, and that the performance has been validated by 3<sup>rd</sup> parties, and reviewed by the FDA. What reporting responsibilities do non-FDA regulated products have?
- B. Legally, if a hospital did not use an FDA cleared medical device for infection control when one was available, and there was an event – then the prosecution could use the decision to increase judgment.
- C. Also legally, given the VA Directive 1061, the pending adoption of the ASHRAE 188 Standard and current "ACA" Affordable Care Act and CMS penalties imposed upon healthcare providers for hospital acquired infections; hospitals must take all reasonable protective measures possible.

**Is Nephros suggesting we place these filters at every sink, shower and ice machine?**

No, we advocate installing them a) at every ice machine, and b) in sinks and showers in your high risk environments, such as the NICU, and in rooms with burn patients, transplant patients, or any other patient in an immune-compromised setting.

**How do these filters connect to our plumbing system?**

Nephros offers the filters in both a quick connect and threaded version for your convenience.

**Are these difficult to install?**

Customers have found that because we use standard plumbing hardware, these are easy to install and adapt to almost any condition.

**How long does it take to install these filters?**

The shower takes about 5 minutes; an ice machine takes about 10 minutes (after the ice machine is disinfected), and a sink takes 15-20 minutes. Once the initial install is complete, replacing filters takes 5-7 minutes thereafter.

**How do we address the disinfection of the faucet of downstream water line?**

The sink disinfection kit plugs directly into the quick connection fitting to facilitate a very simple and clean way to introduce the chemistry into the faucet.

**What type of chemistry does Nephros recommend for faucet or line disinfection?**

Nephros typically uses bleach; however some clients have elected to use chlorine dioxide or sodium hypochlorite.

**How long does it take for the chemical disinfectant to do the job?**

Nephros found that it usually takes between 5-10 minutes – the time it takes to install the filter into the wall.

**Given tight budgets, where should we start?**

We'd recommend phasing the ice machine filters in with each cleaning and disinfection. In the meantime, you should install shower filters in every high risk room.

**Why the ice machines? The customer already has filters on their ice machines...**

If they are using carbon filters, then they have improved the taste, but decreased the residual chemicals that are in the water to kill bacteria. Ice machines are notorious for harboring bacteria and biofilm build-up, and the ice is generally used by patients, staff and visitors, which increases their risk.

**Why would we want to install the shower filters?**

Generally the shower represents the highest risk given the infrequency of use (stagnancy of the water) and exposure through the aerosolizing the bacteria in each water droplet.

**Why does the customer need filters when we have Chlorine Dioxide?**

It takes flow or movement of the chemistry to deliver exposure and kill. Water sitting in a pipe, days after the last chlorine dioxide treatment, can become a welcome place for bacterial growth. A multi-barrier approach will provide patients the best protection when occupancy or flow is uncertain.

**They've never had a problem at their hospital.**

Are they testing the water in patient rooms and ice machines? Of the 18,000 reported cases of Legionella alone coupled with a 5-30% mortality rate, the CDC believes this may be one of the most underreported HAI's in healthcare today.

**More Information**

Please visit our private website and click on the link titled, "Nephros Potable Water Nanofilters" in the "Sales" section.

**Pricing and Ordering**

Please visit the Nephros page mentioned above or visit our "Price Information" page, also in the "Sales" section.



---

**Sent:** Wednesday, January 27, 2016 2:16 PM  
**To:** Doll, Jeanette (DTMB);Cook, Rebecca (DTMB)  
**Subject:** RE: Bluewater water purifiers help Flint

Caleb Buhs is

From: Doll, Jeanette (DTMB)  
Sent: Wednesday, January 27, 2016 2:15 PM  
To: Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
Cc: Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
Subject: RE: Bluewater water purifiers help Flint

Rebecca –

I talked with our Operations Chief who is going to work with Genesee County's Emergency Operations Center to reach out to the businesses. Thank you for sharing!

Any decision on point of contact, number, etc. for companies with services to offer? Just received another email from the PIOs.

Jeanette  
From: Cook, Rebecca (DTMB)  
Sent: Wednesday, January 27, 2016 1:58 PM  
To: Doll, Jeanette (DTMB) <dollj@michigan.gov>  
Cc: Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
Subject: Re: Bluewater water purifiers help Flint

Jeanette

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F/Lt Jen Wolf  
SEOC OPS Health and Env MDEQ

SEOC Desk 517-336-2676  
MSP-EOC-MDEQ@michigan.gov

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Thank you –

Jeanette

From: Cook, Rebecca (DTMB)  
Sent: Tuesday, January 26, 2016 6:10 PM  
To: Doll, Jeanette (DTMB) <dollj@michigan.gov>  
Subject: FW: Bluewater water purifiers help Flint

Jeanette

As we previously discussed, you are my contact to triage and route external inquiries. Bluewater called me this morning, and I requested an email with more information.

It is unclear to me whether this unit meets the standards used for the faucet water filter sourcing. Can a resource be identified to check? If not, someone may want to consider reaching out to the two locations that received donated units.

Thanks for routing this into the correct hands.

Rebecca

From: Lin Guo [mailto:ag@bluewater.se]  
Sent: Tuesday, January 26, 2016 4:27 PM  
To: Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
Cc: Niclas Wullt <nw@bluewater.se>; David Noble <dn@bluewater.se>; Daniel Hertzberg <dh@bluewater.se>; Kim Börjesson <kb@bluewater.se>  
Subject: Bluewater water purifiers help Flint

Hi Rebecca,

It was nice talking to you this morning, we will appreciate if you can read this email and forward to related team who in charge of procurement for Flint water crisis.

Bluewater is a Swedish company that has innovated a patented second-generation reverse osmosis technology which turns tap water into healthier drinking water by removing up to 99% of almost all known water-borne contaminants; plus, cuts the water wastage common to traditional reverse osmosis systems by up to 82%.

Bluewater has been selling in the USA for the past 18 months, based out of Overland Park, Kansas, where we also have our warehouse that serves customers across the United States. We are a sister company to Blueair, which is one of the

major air purifier companies in the United States, based out of Chicago.

Last week saw us donate and install two of our high performance water purifiers in Flint, Michigan, in response to their crisis as our water purifiers excel at removing lead and other toxic metals from residential drinking water. While we applaud people donating water bottles, it is only a short term solution, whereas as water purifiers are both a short-term and a long term solution.

One Bluewater Pro machine was installed at the Community Center at Catholic Charities of Shiawassee and Genesee Counties, where they serve 1,000 meals every day to local residents. The other unit was installed at Shelter of Flint, the largest shelter at Flint.

Both units were installed by Bluewater's Product Manager who traveled to Flint personally. FYI, many bottled water brands in the USA use reverse osmosis to purify their water. Using a Bluewater unit is a cheaper long-term option that also contributes to a better environment because they negate the need for plastic bottles as they deliver purifier water 'on demand'. (a side note, as you may already know, "Pepsi Admits That Its Aquafina Bottled Water is Just Tap Water, Coca-Cola's Dasani Is Next" see news of today <http://healthycures.org/pepsi-admits-that-its-aquafina-bottled-water-is-just-tap-water-coca-colas-dasani-is-next>

The Bluewater Pro400 reverse osmosis water purifiers we donated to Flint can produce 52 gallons of purified water per hour, which means we can supply 2,700 people a total of two liters of clean water free of lead and other toxic metals every day. This translates into saving 4,800 one-liter bottles being put into the environment every day!

The compact Pro is designed for professional use, in restaurants, hotels, schools, hospitals and laboratories. Installing just 38 of our units in Flint would deliver the 100,000 residents two liters of totally clean water every day - meeting their basic daily human health need for drinking water.

Bluewater harnesses our own patented second-generation reverse osmosis technology, which removes practically all toxic contamination from tap drinking water including lead. The other contaminants we remove include other heavy metals, pesticides, medical residues, and dioxins and petro chemicals.

What also makes our water purifiers unique is that our unique technology ALSO radically increases the efficiency of water treatment, which translates into a Bluewater unit using 82% less water to generate clean water than a traditional reverse osmosis unit.

Reverse osmosis technology purifies water by forcing untreated water through a semi-permeable filter or 'membrane'. Bluewater membranes will block toxic metals and chemicals down to 0.0001 micron (that's 500,000 times smaller than a human hair). Our technology also delivers water 'on-demand', which means no need for a holding tank

As a business, we cannot afford to donate an endless number of units free to Flint, but due to the special nature of the situation (and the fact that most of us are parents of small children and have huge sympathy for those impacted by the crisis) we want to step up even more by offering Michigan State prices that are very substantially discounted. In fact, we want to offer you a one-off purchase opportunity that sees us offering you our products at the manufacturing price (i.e. we make no margin on the deal).

This would see the products we recommend you consider coming in at:

Pro 400C-HF(high flow) ( this is the model we donated to Flint) \$1920 shipping  
(suitable for professional use, hospitals, labs, restaurant, coffee shop, office building)  
- Superior Osmosis Technology  
- Direct flow, no need of tank

- Capacity up to 52 gallon per hour
- Clean water delivery rate of 52 gallon per hour
- Cleaning brackish water, up to 7500 ppm
- water quality monitor
- Calibration of cleanliness
- Advanced leak protection system
- Clean water per kWh: 433L/kWh (114.3gallon/kWh) -Clean water rate: 222L/hour (58.6 gallons/hour)
- Dimensions: 225 x 466 x 460mm (8.9 x 18.3 x 18.10 inch)
- Weight: 29kgs (64lb)
- Water recovery rate: 60-70%

The other two models we could consider as an alternative (the only difference is that the water flow is less powerful) are:

- Spirit 300-HF(high flow) \$1350 shipping  
Compact design that fits into any contemporary kitchen
- Designed for Municipal water
  - Superior Osmosis Technology
  - Capacity up to 43.2 gallon per hour
  - Director Flow, no need of tank
  - Extra compact Design
  - Advanced leak protection system
  - Clean water per KWh: 377L/kWh (99.5 gallons/kWh)
  - Clean water rate: of 99L/hour (26.2 gallons/hour)
  - Dimensions: 150 x 462 x 365 mm( 5.9 x 18.2 x 14.4 inches)
  - Weight: 15 kgs (33lb)
  - Water recovery rate: 40-60%

- Spirit 300Cp-HR(high rejection) \$1500 shipping  
Compact design that fits into any contemporary kitchen, can connect to dish washer, coffee maker, ice machine/refrigerator
- Designed for Municipal water
  - Superior Osmosis Technology
  - Capacity up to 43.2 gallon per hour
  - Director Flow, no need of tank
  - Extra compact Design
  - Advanced leak protection system
  - Clean water per KWh: 377L/kWh (99.5 gallons/kWh)
  - Clean water rate: of 99L/hour (26.2 gallons/hour)
  - Dimensions: 150 x 462 x 365 mm( 5.9 x 18.2 x 14.4 inches)
  - Weight: 15 kgs (33lb)
  - Water recovery rate: 40-60%

Please do not hesitate to get back if there is anything additional information you need from us. Attached is our catalog and photo how it looks in the kitchen.

Here are two reference you can contact at Flint, they are using our donated water purifiers now for producing pure water

Liz Ruediger  
Director of Operations & Development  
Shelter of Flint

605 N. Saginaw Street, Suite 2A  
Flint, MI 48502  
810-600-4537

Shegos, Sheila sshegos@ccsgc.org  
810 232 9950  
Catholic Charities of Shiawassee and Genesee Counties  
901 Chippewa St.  
Flint, MI 48503  
www.ccsge.org

To discover more about us at Bluewater, please visit us at [www.bluewatergroup.com](http://www.bluewatergroup.com)

I look forward to hearing from you and let's help Flint together.

Best Regards  
Lin

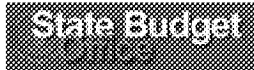
Lin Guo  
National Sales Representative | Bluewater USA Inc.  
Tel: 844 225 8392 (1-844-2Bluewater)  
Cell: 913 593 3115 E: [ag@bluewatergroup.com](mailto:ag@bluewatergroup.com)  
7603 W 145th Terrace, Overland Park, Kansas 66223, USA  
Headquarter:  
Bluewater Group  
Danderydsgatan 11, 114 26 Stockholm, Sweden  
[www.bluewatergroup.com](http://www.bluewatergroup.com)  
Turning tap water into healthier drinking water.  
<image001.jpg>

---

**From:** Weiss, Kurt (DTMB)  
**Sent:** Wednesday, January 27, 2016 2:36 PM  
**To:** Brownlee, Jeff (DTMB); Buhs, Caleb (DTMB); Cook, Rebecca (DTMB)  
**Subject:** RE: Next Step

No worries. Always happy to help.

Kurt Weiss  
State Budget Office  
517-335-0050



---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, January 27, 2016 2:29 PM  
**To:** Buhs, Caleb (DTMB); Cook, Rebecca (DTMB)  
**Cc:** Weiss, Kurt (DTMB)  
**Subject:** RE: Next Step

Thanks, Caleb! Kurt, sorry we roped you into this.

---

**From:** Buhs, Caleb (DTMB)  
**Sent:** Wednesday, January 27, 2016 2:27 PM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; MSP-EOC-MDCH <MSP-EOC-MDCH@michigan.gov>  
**Cc:** Weiss, Kurt (DTMB) <WeissK1@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Subject:** RE: Next Step

Jeanette,

After talking this over with Jeff Brownlee, there does not seem to be any legal reason why they couldn't add a button, as was requested below. There are a few things that need to be considered though.

- Expectations need to be set for the response to these inquiries. It would be best if the receiver of these submissions was located at the SEOC, so they could review with the appropriate agency leads and determine an appropriate response. If it is expected that DTMB Procurement serve as the contact, the response to vendors will be severely delayed and in some cases they may not be able to get a response back at all.
- If it is determined that a submission is feasible, the SEOC should work with Procurement to make sure all proper procedures are followed.
- Shannon Banner has provided some language to the SEOC for the button that should be utilized.

Feel free to contact me if you need any further help. I've been working at the JIC in Flint today and am available by cell at 517-303-4038.

Thanks,

**Caleb Buhs**  
Public Information Officer  
Dept. of Technology, Management and Budget  
O: 517-241-7422  
C: 517-303-4038



HELP. CONNECT. SOLVE.

---

**From:** MSP-EOC-MDTMB  
**Sent:** Wednesday, January 27, 2016 11:01 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Cc:** MSP-EOC-MDTMB <MSP-EOC-MDTMB@michigan.gov>  
**Subject:** FW: Next Step  
**Importance:** High

Rebecca --

We received the following email and would like to make sure we are providing accurate information. Please review and we can talk.

Jeanette

---

**From:** MSP-SEOCPIO

**Importance:** High

Can you check with DTMB on this. Tori Sachs with the Gov's Office was considering adding a button on [www.helpforflint.com](http://www.helpforflint.com) to capture vendors who want to pitch their product/idea; however, last I talked with her, there were concerns about violating state procurement processes.

Maybe DTMB has an email account already established for people who want to do business with the state? This is what FEMA has on their website for disasters.

Seems to me this should be handed off to DTMB procurement for a solution.

---

**From:** DeVriendt, Chris [CDeVriendt@co.genesee.mi.us]  
**Sent:** Wednesday, January 27, 2016 7:33 AM  
**To:** JICManager; MSP-seodlgc; Adelman, Mitch (DEQ)  
**Cc:** Kuzera, Michelle (MSP); Ducharme, Mark (DEQ)  
**Subject:** FW: Next Step

Can someone please address this. If there is going to be zero communication with 'vendors', then there needs to be a canned response indicating such. I spend an inordinate amount of time with these missives as they are coming into my work e-mail, calling the LEOC phones, and showing up at the LEOC doorstep pitching their solutions because nobody is communicating with them.

Chris DeVriendt, LVT, MPH  
Emergency Management Manager  
Office of Genesee County Sheriff  
Emergency Management Homeland Security Division  
1002 South Saginaw Street

Flint, MI 48502  
(810) 257-3064(direct)  
(810) 237-6169 (fax)  
[cdevriendt@co.geneseee.mi.us](mailto:cdevriendt@co.geneseee.mi.us)

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**From:** Governor's Office <governorsoffice@govsubscriptions.michigan.gov>  
**Sent:** Friday, January 29, 2016 9:41 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Thank you for your service



Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.

## THANK YOU!

Fellow employees,

Each day, more than 46,000 state of Michigan employees come to work with the confidence and commitment to make Michigan a better place to live, work and play. I appreciate the way you care about the citizens we serve, and how it is reflected in the work that you do.

As you have heard from me and the media, our reputation and trust can be severely impacted when people do not make good decisions, or use good judgment in solving problems. That principle is universal, but never more so than when public health is at stake. What happened in Flint can never be allowed to happen again anywhere in our state.

I know that you want to work in a place where employee input is valued, efforts are recognized, and teams are always striving for continuous improvement. That's why we introduced employee surveys, Bureaucracy Busters and other reinvention initiatives. We want and deserve a culture of innovation, continuous improvement and employee engagement at every level. We can never take for granted how important the people are who depend on us to do our jobs, and I am asking you not to let the situation in Flint negatively impact your motivation to excel every day.

Many of you have taken an interest in helping the citizens of Flint on your own time, and I'd like to take this opportunity to recognize and thank those who have volunteered over the last couple of weekends. You have worked tirelessly to deliver cases of bottled water, water filters, replacement cartridges and water testing kits to the families in need. I appreciate you donating your time to help our fellow Michiganders. To date, more than 37,000 homes have been visited by one of our water resource teams.

For employees who would like to further help the people of Flint, please visit [www.HelpForFlint.com](http://www.HelpForFlint.com) to learn how you can do so. For additional information and to sign up for daily updates, please visit [www.mi.gov/FlintWater](http://www.mi.gov/FlintWater). I am committed to ensuring that all residents have access to safe and clean water.

Again, I'd like to express my gratitude for the work you do every day to continuously improve our state and earn the trust of those you serve. You make a real difference.

Thanks,



Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.  
Governor Rick Snyder

Governor Rick Snyder



Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.  
Photos of state employees volunteering

#### STAY CONNECTED:



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This email was sent to brownieej@michigan.gov on behalf of: The Executive Office of the Governor · 111 South Capitol Avenue · Lansing, MI 48909 · 517-335-7356

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**From:** DBusiness Daily News <noreply@dbusiness.com>  
**Sent:** Friday, January 29, 2016 12:43 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** DBusiness Daily News for Friday, January 29

If you're having trouble viewing this email, you may [see it online](#).

Share this:    



## Friday, January 29, 2016

### Livonia's ZF TRW to Open Electronics Division Headquarters in Farmington Hills

Livonia-based ZF TRW, a supplier of safety electronics products, will open a new 170,000-square-foot headquarters for its global electronics business in Farmington Hills.

[READ MORE](#)



### Radisson Overhauls Shuttered Hotel Near Metro Detroit Airport

The former Metropolitan Hotel in Romulus, closed for more than three years, will reopen this summer as the 274-room Radisson Hotel Detroit Metro Airport following a multi-million-dollar renovation.

[READ MORE](#)



### Benton Harbor's Whirlpool Reports \$21B in Revenue for 2015

Benton Harbor-based Whirlpool Corp. today announced net sales of \$20.9 billion in 2015 compared to \$19.9 billion in 2014, an increase of 18 percent. Additionally, the company reported profits of \$1.3 billion in 2015.

[READ MORE](#)

### Van Andel Research Institute Begins Next Phase

## Therapy for Colon Cancer Trial

A second phase clinical trial is moving forward as part of Grand Rapids-based Van Andel Research Institute's initiative to treat cancer. The launch of the next phase, announced today, will focus on treating metastatic colon cancer, the second leading cause of cancer deaths among men and women in the U.S.

[READ MORE](#)



## Ann Arbor IT Firm Helps Solve Language Barriers Between Doctors, Patients

Eloquence Communications, an Ann Arbor-based information technology company, has solved the problem of language disparities between health care providers and non-English speaking patients.

[READ MORE](#)

## Guest Blog: Flint — No Longer Out of Sight, Out of Mind

It seems the whole country is talking about Flint. There is justifiable outrage about the process, the horrible impact on the community, and the failures to detect and swiftly respond to the Flint water crisis. There has been a lot of finger pointing about who is responsible, but little discussion about preventing this from happening again.

[READ MORE](#)

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## Around the D



## Coalition on Temporary Shelter's 17th Annual Soup City

More than 150 people attended the Coalition on Temporary Shelter's 17th annual Soup City event on Jan. 21 at the Gem Theatre in downtown Detroit. The event featured soups from restaurants in the area, along with entertainment by the Jerry Ross Band and Les Williams.

[VIEW GALLERY](#)

## OUT ON THE TOWN

*DBusiness* sponsors events and opportunities throughout metro Detroit. Check out the complete list of upcoming Out on the Town happenings and other events.

[VIEW CALENDAR](#)



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This email was sent to [brownleej@michigan.gov](mailto:brownleej@michigan.gov). To ensure that you continue receiving our emails, please add us to your address book or safe list.

[manage](#) your preferences | [opt out](#) using [TrueRemove®](#).

Get this as a forward? [Sign up](#) to receive our future emails.

---

**Sent:** Monday, February 01, 2016 11:00 AM  
**Subject:** FW: Vendor link

From: Riehle, Jenni (DTMB)  
Sent: Monday, February 1, 2016 10:54 AM  
To: Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Subject: RE: Vendor link

Hi Jeff,

I made a new tab specifically for this instead of redoing the vendor gateway. I am unable to send you a link because it is not a live page yet and you do not have access to the back end of the system. I have the below screen shot however. We can provide them this direct link or vendors can access this page by clicking on the left hand tab off of the Contract Connect website. These submissions will be sent to our general email box [dtmb-micontractconnect@michigan.gov](mailto:dtmb-micontractconnect@michigan.gov).

Please let me know of any changes you have. Thanks!

Jenni

From: Riehle, Jenni (DTMB)  
Sent: Monday, February 01, 2016 10:25 AM  
To: Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Subject: RE: Vendor link

Sure thing. Our network has been down all morning but I think they have it back up. I will work on it now.

Jenni

From: Brownlee, Jeff (DTMB)  
Sent: Monday, February 01, 2016 10:24 AM  
To: Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
Subject: Re: Vendor link

When you have a mock up, please send a link to me and Brom. He needs this today, please. Thanks, Jenni!

Jeff

Sent from my iPhone

On Feb 1, 2016, at 7:59 AM, Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)> wrote:  
Yeah, I can make one of the boxes ask if they are offering free or in-kind services. It would seem like they would go to the donation button on the Help for Flint site for that, but I'll put it in there.

Jenni  
From: Brownlee, Jeff (DTMB)

Sent: Sunday, January 31, 2016 8:55 PM  
To: Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
Subject: Fwd: Vendor link

FYI. Can we do this?

Sent from my iPhone

Begin forwarded message:

From: "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
Date: January 31, 2016 at 8:13:46 PM EST  
To: "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Subject: Fwd: Vendor link

See the one requested change from the Gov's office. Please let me see the thing before we share it. Thanks.

Thanks.

Brom Stibitz

Begin forwarded message:

From: "Sachs, Tori (GOV)" <[SachsT@michigan.gov](mailto:SachsT@michigan.gov)>  
Date: January 31, 2016 at 7:44:33 PM EST  
To: "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
Subject: RE: Vendor link

Looks good. I think we would like to link to it from the flint water site(s). The only addition I would like to see is somewhere that people could check a box offering "free" or "in kind" services.

From: Stibitz, Brom (DTMB)  
Sent: Friday, January 29, 2016 5:41 PM  
To: Sachs, Tori (GOV)  
Subject: Vendor link

Tori – our plan would be to modify this form for your needs. We could put this up on whichever site you prefer. Or we could give you a link for use on the Flint site.

Can you let me know if you have any specific changes you would like to see?

(PLEASE DO NOT SEND ANYONE TO THIS LINK NOW)

<http://michigan.gov/micontractconnect/0,4541,7-225-56585---,00.html>

Brom Stibitz  
Chief Deputy Director  
Michigan Department of Technology, Management and Budget [stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004  
<image001.gif>

---

**From:** Bankowski, Jeffrey S. (DTMB)  
**Sent:** Monday, February 01, 2016 3:24 PM  
**To:** Saxton, Thomas (Treasury)  
**Cc:** Brownlee, Jeff (DTMB)  
**Subject:** FW: Revised Engagement Letter  
**Attachments:** ATT00001.htm; Flint Engagement Letter VII.docx; ATT00002.htm

Tom --

I reviewed with Roberts couple of notes- is this the latest and greatest -- as Roberts thought there was some version that had comments from Rich and Nick

Also, Roberts indicated -- Nick will be signing and the funds are coming from Treasury through the work project for assisting distressed communities.

Brownlee and I are on a call with D&T at 5 pm -- any chance you can also attend -- as Nick is the signer?

Jeff

---

**From:** Stibitz, Brom (DTMB)  
**Sent:** Friday, January 29, 2016 10:54 AM  
**To:** Bankowski, Jeffrey S. (DTMB)  
**Cc:** Brownlee, Jeff (DTMB)  
**Subject:** FW: Revised Engagement Letter

Jeff (Bankowski) -- per our conversation, please see attached and below. Jeff Brownlee (copied here) has reviewed this and has some definite thoughts. I don't need to be part of any conversation between you two on this, but will join if you need me to.

I will text RB as discussed.

**From:** Saxton, Thomas (Treasury)  
**Sent:** Tuesday, January 26, 2016 8:56 AM  
**To:** Baird, Richard (GOV) <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>  
**Cc:** Workman, Wayne (TREASURY) <[WorkmanW@michigan.gov](mailto:WorkmanW@michigan.gov)>; Khouri, Nick (TREASURY) <[KhouriN@michigan.gov](mailto:KhouriN@michigan.gov)>  
**Subject:** RE: FW: Revised Engagement Letter

The only change from the earlier version is the two bullets at the top of p. 2. See below. It doesn't specifically mention assessing the City's cash situation. I am concerned that there are no written deliverables at the end of the 30 days. The \$50k does not seem to be a 'hard' cap. And it seems like it should be supported by their hours & rates. This looks like a 'boilerplate' DT document. There are some provisions that I think would contradict what you find in a state base contract (e.g., indemnification, travel reimbursement, taxes). They would not get thru purchasing. Also, who is going to be the point of contact for the state?



- Supporting the Mayor in developing a new organization structure and decision matrix that covers governance and management activities of the City.
- Supporting the Mayor in assessing the current state of financial management reporting, understand the unique requirements given recent events, and provide recommendations on enhancing the City's overall financial management processes to provide stakeholders with the variety of information that will be necessary over time.

**From:** Baird, Richard (GOV)  
**Sent:** Tuesday, January 26, 2016 8:34 AM  
**To:** Saxton, Thomas (Treasury) <[SaxtonT@michigan.gov](mailto:SaxtonT@michigan.gov)>  
**Cc:** Workman, Wayne (TREASURY) <[WorkmanW@michigan.gov](mailto:WorkmanW@michigan.gov)>  
**Subject:** Re: FW: Revised Engagement Letter

I have read and am fine with the initial scope, cost, and deliverables.

---

**From:** Saxton, Thomas (Treasury)  
**Sent:** Monday, January 25, 2016 5:25 PM  
**To:** Steckelberg, Larry (TREASURY) <[SteckelbergL@michigan.gov](mailto:SteckelbergL@michigan.gov)>; Workman, Wayne (TREASURY) <[WorkmanW@michigan.gov](mailto:WorkmanW@michigan.gov)>; Khouri, Nick (TREASURY) <[KhouriN@michigan.gov](mailto:KhouriN@michigan.gov)>  
**Subject:** Fwd: Revised Engagement Letter

I have not looked at this yet. Nick - I connected with Rich.  
 We seem to be on the same page with him. Then he and I called Mark. This is the result.

Sent from my iPhone

Begin forwarded message:

**From:** "Davidoff, Mark (US - Detroit)" <[mdavidoff@deloitte.com](mailto:mdavidoff@deloitte.com)>  
**Date:** January 25, 2016 at 3:27:51 PM EST  
**To:** "Saxton, Thomas (Treasury)" <[SaxtonT@michigan.gov](mailto:SaxtonT@michigan.gov)>  
**Cc:** "Schwerdtfeger, Kathryn (US - Austin)" <[kschwerdtfeger@deloitte.com](mailto:kschwerdtfeger@deloitte.com)>  
**Subject:** Revised Engagement Letter

Tom –

Attached is the revised engagement letter.

Look forward to your thoughts.

**Mark Davidoff**  
 Michigan Managing Partner  
 Deloitte LLP

Office: 313-396-3317  
 Mobile: 248-705-1996  
 200 Renaissance Center  
 Detroit, Michigan 48243-1895

January 18, 2016

Mr. John Roberts  
State Budget Director  
State of Michigan  
Romney Building  
111 S. Capitol Avenue  
Lansing, MI 48933

Dear Mr. Roberts,

This engagement letter is to confirm the engagement of Deloitte & Touche LLP ("Deloitte Advisory" or "we" or "our" or "us") to provide the State of Michigan and its agencies and subdivisions, to include the City of Flint (collectively, the "Organization" or "Client" or "you") crisis response and/or recovery services related to the water contamination crisis in the City of Flint Michigan that was signed as a Presidential Emergency Declaration on January 16, 2016 (the "event") described below (the "Services"). This letter is effective as of January 18, 2016.

We understand that the State of Michigan's objectives for this engagement is to have Deloitte support the response and recovery in the following ways:

- Become the trusted advisor and subject matter resource to the Client
- Serve as a liaison on behalf of the City with State, Federal, and other Stakeholders
- Help bring structure and organization to the crisis response and recovery efforts
- Provide other crisis response and recovery services to be defined by the Client as the crisis evolves

## **SCOPE, APPROACH, and DELIVERABLES**

We are prepared to provide consulting services and advice related to the event that will be based on discussions with you as the engagement progresses and as additional information is obtained during the course of the engagement. At this time we anticipate focusing on the following:

<sup>1</sup>As used in this engagement letter, "Deloitte Advisory" means Deloitte & Touche LLP, which provides audit and enterprise risk services; Deloitte Financial Advisory Services LLP, which provides forensic, dispute, and other consulting services; and its affiliate, Deloitte Transactions and Business Analytics LLP, which provides a wide range of advisory and analytics services. Deloitte Transactions and Business Analytics LLP is not a certified public accounting firm. These entities are separate subsidiaries of Deloitte LLP. Please see [www.deloitte.com/us/about](http://www.deloitte.com/us/about) for a detailed description of the legal structure of Deloitte LLP and its subsidiaries. Certain services may not be available to attest clients under the rules and regulations of public accounting.

- Supporting the Mayor in developing a new organization structure and decision matrix that covers governance and management activities of the City.
- Supporting the Mayor in assessing the current state of financial management reporting, understand the unique requirements given recent events, and provide recommendations on enhancing the City's overall financial management processes to provide stakeholders with the variety of information that will be necessary over time.

We anticipate this initial assessment phase of the engagement to last no more than 30 days. At the conclusion of the initial assessment period, a more detailed scope of services will be defined and mutually agreed to by the parties in a formal amendment to this engagement letter.

The Services will be performed in accordance with the *Statement on Standards for Consulting Services* that is issued by the American Institute of Certified Public Accountants ("AICPA").

We will provide our observations, advice, and recommendations, which we anticipate will be delivered orally. Written deliverables may be produced in support of the agreed scope, but will be owned and managed by the Client. The determination of any specific written deliverables to be produced will be agreed to by both parties and documented as the engagement progresses.

#### **ENGAGEMENT STAFFING**

Based on the information received to date, we have structured the following engagement team for the performance of the Services:

Mark Davidoff, Partner and Lead Client Services Partner for the State of Michigan, will oversee all services provided to the State regarding this event.

Rhoda Woo, Managing Director and Leader of Deloitte's National Crisis Management Solutions Practice, will serve as the crisis response advisor providing oversight over the day-to-day operations of the support team.

Kathie Schwerdtfeger, Partner and Leader of Deloitte's National Crisis Recovery Practice will serve as the crisis recovery advisor and will provide oversight over the day-to-day operations of the support team.

Linus Akanoh, Advisory Senior Manager, will serve as the lead senior manager directing the execution of day to day activities of Deloitte staff.

Additional assistance may also be provided by other professionals who will be identified during the course of this engagement. Furthermore, we will modify personnel, as needed, as additional information is received and will be mutually agreed upon with the Client.

#### **FEES, TIMING, AND OTHER SERVICES**

We are prepared to begin work on a mutually agreed-upon date following your acceptance of the terms of this letter.

Our fees will be based on the actual time spent at hourly rates that relate to the levels of experience of the individuals assigned to the engagement.

We anticipate that the estimate of fees for the initial assessment phase will not exceed \$50,000 each week. Should we determine that fees may exceed the weekly estimate, we will provide the Client with prior written notification prior to billing.

Fees for additional phases will be defined in subsequent amendments to this engagement letter.

Our rates are based upon our current understanding of the engagement requirements, our proposed approach, our estimate of the level of effort required, our roles and responsibilities, and any assumptions set forth herein. Fees will be billed biweekly and are payable upon receipt.

In addition to our fees, we will be reimbursed for all reasonable expenses incurred in performing the Services (including, but not limited to, our reasonable travel, meal, lodging, and mileage expenses). These expenses shall be billed at our incurred cost and added to our bi-weekly invoices.

Our fees and expenses are not contingent upon the final resolution of the crisis event that is the subject of this engagement. Based on our experience, issues sometimes arise that require procedures beyond what was initially anticipated. If this should occur, we will discuss it with you prior to performing any additional work.

## **ACKNOWLEDGEMENTS AND AGREEMENTS**

In connection with this engagement, the Client acknowledges and agrees to the following:

- The Client will provide a primary point-of-contact (POC) for the duration of the engagement. The Client POC will help coordinate interviews and meetings, obtain regular status updates, provide quick turnaround on identification or validation of input, and to obtain enterprise risk management knowledge transfer throughout the engagement.
- Timely identification of, availability of, and cooperation from stakeholders and other Client resources required at the various steps of the engagement, particularly for interviews in Phase 1.
- Should access to Client individuals be limited, the timeline and costs will be revised and discussed with you. Fees for this engagement will be billed bi-weekly and payable in accordance with the General Business Terms attached to this Engagement Letter as Exhibit A.
- The engagement will be scheduled to begin on an agreed date. Any delays in project initiation or timely assistance by Client personnel will delay the respective delivery dates and may increase the total fees beyond the amount set forth herein.
- Substantial and meaningful involvement of Client personnel is critical to the success of this engagement. The Client will be responsible for ensuring that the identified personnel actively participate in the planning and execution of this engagement.
- The Client will provide timely feedback, including feedback on each defined deliverable, within five

business days.

- The Client is solely responsible for, among other things: a) the performance of its personnel and agents; b) the accuracy and completeness of all data and information provided to Advisor for purposes of providing the services described; c) making all management decisions, performing all management functions, and assuming all management responsibilities; d) designating a competent management member to oversee the services; e) evaluating the adequacy and results of the services; f) accepting responsibility for the results of the services; and g) establishing and maintaining internal controls, including monitoring ongoing activities.
- Due to the nature of the crisis event, the specific scope of work will likely require modification during the initial phase of the engagement and as additional information is obtained throughout the engagement. Key modifications will be documented in a formal amendment and will be mutually agreed up by the parties.
- Deloitte Advisory may retain copies of the deliverables and any information evidencing Deloitte Advisory's performance of Services and any Client confidential information contained in such retained materials shall remain subject to Deloitte Advisory's confidentiality obligations set forth in the attached General Business Terms.
- Substantial and meaningful involvement of the Client's management officials responsible for coordination and oversight of the crisis response and recovery efforts, *e.g.*: field personnel, subject matter specialists, senior management, key executives, board members] of the State is critical to the success of this engagement. The Client is responsible for ensuring that (1) the identified Client personnel actively participate in both the planning and execution of this engagement and (2) Client personnel will be available to meet with the Deloitte Advisory's team as needed.
- The Client is responsible for all management decisions and external communications with the media, stakeholders, and others. We may provide advice and recommendations regarding the content of such external communications, but the Client will make final decisions. The Client will not disclose Deloitte Advisory's role externally without explicit written permission from us.
- The Client agrees that it will advise us in a timely manner of any applicable legal requirements concerning the Services to be provided by us, including, without limitation, the identification of any reports to be provided by us; the formats of, and filing deadlines for, such reports; and the legal requirements, if any, concerning the retention of our notes, draft reports, or other work product.
- The Services will not constitute an engagement to provide audit, compilation, review, or attestation services as described in the pronouncements on professional standards issued by the AICPA, the Public Company Accounting Oversight Board, or other regulatory body and, therefore, we will not express an opinion or other form of assurance with respect to our services.
- We will not provide any legal advice regarding this engagement or any assurance regarding the outcome of any future audit or regulatory examination or other regulatory action. The Client will be responsible for all regulatory and legal issues with respect to these matters.

- Deliverables provided under this engagement may be disclosed by the Client's independent accountants to the extent required solely in connection with their audit of the Client's financial statements.
- Deliverables provided under this engagement may be disclosed by the Client to the Flint City Council, State of Michigan legislature, and/or federal oversight authorities to include the Federal Emergency Management Agency and other federal agencies supporting the response and recovery efforts of the Client. This information is being provided to these entities for informational purposes and solely in the exercise of their statutory authority over the crisis response and recovery efforts of the Client.

\* \* \* \* \*

During the term of this engagement, the Client may request that we perform additional services that are not encompassed by this engagement letter. Deloitte Advisory may perform such additional services upon receipt of a separate, signed engagement letter with terms and conditions that are acceptable to Deloitte Advisory and the Client.

This engagement letter, together with the General Business Terms attached hereto [as Exhibit A] and made a part hereof, constitute the entire agreement between the Client and Deloitte Advisory with respect to this engagement, supersede all other oral and written representations, understandings, or agreements relating to this engagement, and may not be amended except by the mutual written agreement of the Client and Deloitte Advisory.

Please indicate your acceptance of this agreement by signing this engagement letter in the space provided below and returning this engagement letter to us. A duplicate of this engagement letter is provided for your records.

Very truly yours,

Deloitte & Touche LLP

By: \_\_\_\_\_  
Rhoda Woo, Partner

Accepted and agreed to by the State of Michigan on behalf of itself and its subsidiaries:

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT A — GENERAL BUSINESS TERMS**

1. **Services.** The services provided by Deloitte Advisory (the "Services") under the engagement letter to which these terms are attached (the "Engagement Letter") may include advice and recommendations, but Deloitte Advisory will not make any decisions on behalf of Client in connection with the implementation of such advice and recommendations. For purposes of these terms and the Engagement Letter, "Client" shall mean the entity as defined in the Engagement Letter.
2. **Payment of Invoices.** Client will compensate Deloitte Advisory under the terms of the Engagement Letter for the Services performed and expenses incurred, through the term or effective date of termination of this engagement. Deloitte Advisory's invoices are due upon receipt. If payment is not received within thirty (30) days of receipt of an invoice (a) such invoice shall accrue a late charge equal to the lesser of (i) 1½% per month or (ii) the highest rate allowable by law, in each case compounded monthly to the extent allowable by law, and (b) Deloitte Advisory may also suspend or terminate the Services. Client shall be responsible for any taxes imposed on the Services or on this engagement, other than taxes imposed by employment withholding for Deloitte Advisory's personnel or on Deloitte Advisory's income or property.
3. **Term.** Unless terminated sooner as set forth below, this engagement shall terminate upon the completion of the Services. Either party may terminate this engagement, with or without cause, by giving thirty (30) days' prior written notice to the other party. In the event of a termination for cause, the breaching party shall have the right to cure the breach within the notice period. Deloitte Advisory may terminate this engagement upon written notice to Client if Deloitte Advisory determines that the performance of any part of the Services would be in conflict with law, or independence or professional rules.
4. **Deliverables.**
  - a) Deloitte Advisory has rights in, and may, in connection with the performance of the Services, use, create, modify, or acquire rights in, works of authorship, materials, information, and other intellectual property (collectively, the "Deloitte Advisory Technology").
  - b) Upon full payment to Deloitte Advisory hereunder, and subject to the terms and conditions contained herein, (i) the tangible items specified as deliverables or work product in the Engagement Letter (the "Deliverables") shall become the property of Client, and (ii) Deloitte Advisory hereby grants Client a royalty-free, fully paid-up, worldwide, nonexclusive license to use the Deloitte Advisory Technology contained in the Deliverables in connection with the use of such Deliverables. Except for the foregoing license grant, Deloitte Advisory or its licensors retain all rights in and to all Deloitte Advisory Technology.
  - c) To the extent any Deloitte Advisory Technology provided to Client hereunder constitutes inventory within the meaning of section 471 of the Internal Revenue Code, such Deloitte Advisory Technology is licensed to Client by Deloitte Advisory as agent for Deloitte & Touche Products Company LLC on the terms and conditions contained herein. The rights granted in this Section 4 do not apply to any Deloitte Advisory Technology that is subject to a separate license agreement between Client and any third party (including Deloitte Advisory's affiliates).
5. **Limitation on Warranties.** This is a services engagement. Deloitte Advisory warrants that it shall perform the Services in good faith and with due professional care. DELOITTE ADVISORY

DISCLAIMS ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

6. **Limitation on Damages and Indemnification.**

a) Deloitte Advisory, its subsidiaries and subcontractors, and their respective personnel shall not be liable to Client for any claims, liabilities, or expenses relating to this engagement ("Claims") for an aggregate amount in excess of the fees paid by Client to Deloitte Advisory pursuant to this engagement, except to the extent resulting from the recklessness, bad faith, or intentional misconduct of Deloitte Advisory or its subcontractors. In no event shall Deloitte Advisory, its subsidiaries or subcontractors, or their respective personnel be liable to Client for any loss of use, data, goodwill, revenues, or profits (whether or not deemed to constitute a direct Claim), or any consequential, special, indirect, incidental, punitive, or exemplary loss, damage, or expense relating to this engagement.

b) In circumstances where any limitation on damages or indemnification provision hereunder is unavailable, the aggregate liability of Deloitte Advisory, its subsidiaries and subcontractors, and their respective personnel for any Claim shall not exceed an amount that is proportional to the relative fault that the conduct of Deloitte Advisory and its subcontractors bears to all other conduct giving rise to such Claim.

7. **Client Responsibilities.** Client shall cooperate with Deloitte Advisory in the performance of the Services, including providing Deloitte Advisory with reasonable facilities and timely access to data, information, and personnel of Client. With respect to the data and information provided by Client to Deloitte Advisory or its subcontractors for the performance of the Services, Client shall have all rights required to provide such data and information, and shall do so only in accordance with applicable law and with any procedures agreed upon in writing. Client shall be solely responsible for, among other things (a) the performance of its personnel and agents; (b) the accuracy and completeness of all data and information provided to Deloitte Advisory for purposes of the performance of the Services; (c) making all management decisions, performing all management functions, and assuming all management responsibilities; (d) designating a competent management member to oversee the Services; (e) evaluating the adequacy and results of the Services; (f) accepting responsibility for the results of the Services; and (g) establishing and maintaining internal controls, including monitoring ongoing activities. Deloitte Advisory's performance is dependent upon the timely and effective satisfaction of Client's responsibilities hereunder and timely decisions and approvals of Client in connection with the Services. Deloitte Advisory shall be entitled to rely on all decisions and approvals of Client.

8. **Force Majeure.** Neither party shall be liable for any delays or nonperformance directly or indirectly resulting from circumstances or causes beyond its reasonable control, including fire, epidemic or other casualty, act of God, strike or labor dispute, war or other violence, or any law, order, or requirement of any governmental agency or authority.

9. **Limitation on Actions.** No action, regardless of form, relating to this engagement, may be brought by either party more than one year after the cause of action has accrued, except that an action for nonpayment may be brought by a party not later than one year following the due date of the last payment owing to the party bringing such action.



10. **Independent Contractor.** Each party hereto is an independent contractor and neither party is, nor shall be considered to be, nor shall purport to act as, the other's agent, partner, fiduciary, joint venturer, or representative.

11. **Confidentiality and Internal Use.**

a) All Services and Deliverables shall be solely for Client's benefit, and are not intended to be relied upon by any person or entity other than Client. Client shall not disclose the Services or Deliverables, or refer to the Services or Deliverables in any communication, to any person or entity except (i) as specifically set forth in the Engagement Letter, or (ii) to Client's contractors solely for the purpose of their providing services to Client relating to the subject matter of this engagement, provided that such contractors comply with the restrictions on disclosure set forth in this sentence. Client, however, may create its own materials based on the content of such Services and Deliverables and use and disclose such Client-created materials for external purposes, provided that, Client does not in any way, expressly or by implication, attribute such materials to Deloitte Advisory or its subcontractors.

b) To the extent that, in connection with this engagement, either party (each, the "receiving party") comes into possession of any confidential information of the other (the "disclosing party"), it will not disclose such information to any third party without the disclosing party's consent, using at least the same degree of care as it employs in maintaining in confidence its own confidential information of a similar nature, but in no event less than a reasonable degree of care. The disclosing party hereby consents to the receiving party disclosing such information: (i) as expressly permitted in the Engagement Letter; (ii) to contractors providing administrative, infrastructure, and other support services to the receiving party and subcontractors providing services in connection with this engagement, in each case, whether located within or outside of the United States, provided that such contractors and subcontractors have agreed to be bound by confidentiality obligations similar to those in this Section 11(b); (iii) as may be required by law or regulation, or to respond to governmental inquiries, or in accordance with applicable professional standards or rules, or in connection with litigation or arbitration pertaining hereto; or (iv) to the extent such information (a) is or becomes publicly available other than as the result of a disclosure in breach hereof, (b) becomes available to the receiving party on a nonconfidential basis from a source that the receiving party believes is not prohibited from disclosing such information to the receiving party, (c) is already known by the receiving party without any obligation of confidentiality with respect thereto, or (d) is developed by the receiving party independently of any disclosures made to the receiving party hereunder. Nothing in this Section 11(b) shall alter Client's obligations under Section 11(a). Deloitte Advisory, however, may use and disclose any knowledge and ideas acquired in connection with the Services to the extent they are retained in the unaided memory of its personnel.

12. **Survival and Interpretation.** All provisions that are intended by their nature to survive performance of the Services shall survive such performance, or the expiration or termination of this engagement. For purposes of these terms and the Engagement Letter, "Deloitte Advisory" or "Advisor" shall mean Deloitte & Touche LLP. Each of the provisions of these terms shall apply to the fullest extent of the law, whether in contract, statute, tort (such as *negligence*), or otherwise, notwithstanding the failure of the essential purpose of any remedy. Any references herein to the term "including" shall be deemed to be followed by "without limitation."

13. **Assignment and Subcontracting.** Except as provided below, neither party may assign any of its rights or obligations (including interests or Claims) relating to this engagement or the Services, without the prior written consent of the other party. Client hereby consents to Deloitte Advisory subcontracting or assigning any portion of the Services to any affiliate or related entity, whether located within or outside of the United States. Services performed hereunder by Deloitte Advisory's subcontractors shall be invoiced as professional fees on the same basis as Services performed by Deloitte Advisory's personnel unless otherwise agreed.

14. **Waiver of Jury Trial.** THE PARTIES HEREBY IRREVOCABLY WAIVE, TO THE FULLEST EXTENT PERMITTED BY LAW, ALL RIGHTS TO TRIAL BY JURY IN ANY ACTION, PROCEEDING, OR COUNTERCLAIM RELATING TO THIS ENGAGEMENT.

14. **Dispute Resolution.** Any controversy or claim between the parties arising out of or relating to these terms, the Engagement Letter, or this engagement (a "Dispute") shall be resolved by mediation or binding arbitration as set forth below.

- a) **Mediation.** All Disputes shall first be submitted to nonbinding confidential mediation by written notice to the parties, and shall be treated as compromise and settlement negotiations under the standards set forth in the Federal Rules of Evidence and all applicable state counterparts, together with any applicable statutes protecting the confidentiality of mediations or settlement discussions. If the parties cannot agree on a mediator, the International Institute for Conflict Prevention and Resolution ("CPR"), at the written request of a party, shall designate a mediator.
- b) **Arbitration Procedures.** If a Dispute has not been resolved within 90 days after the effective date of the written notice beginning the mediation process (or such longer period, if the parties so agree in writing), the mediation shall terminate and the Dispute shall be settled by binding arbitration to be held in New York, New York. The arbitration shall be conducted in accordance with the CPR Rules for Non-Administered Arbitration that are in effect at the time of the commencement of the arbitration, except to the extent modified by this Section 14 (the "Rules"). The arbitration shall be conducted before a panel of three arbitrators. Each of Client and Deloitte Advisory shall designate one arbitrator in accordance with the "screened" appointment procedure provided in the Rules and the two party-designated arbitrators shall jointly select the third in accordance with the Rules. No arbitrator may serve on the panel unless he or she has agreed in writing to enforce the terms of the Engagement Letter (and its appendices) and to abide by the terms of this Section 14. Except with respect to the interpretation and enforcement of these arbitration procedures (which shall be governed by the Federal Arbitration Act), the arbitrators shall apply the governing law set forth in Section 18 in connection with the Dispute. The arbitrators shall have no power to award damages inconsistent with these terms or the Engagement Letter, including the limitation on liability and indemnification provisions contained herein. The arbitrators may render a summary disposition relative to all or some of the issues, provided that the responding party has had an adequate opportunity to respond to any such application for such disposition. Discovery shall be conducted in accordance with the Rules. All aspects of the arbitration shall be treated as confidential, as provided in the Rules. Before making any disclosure permitted by the Rules, a party shall give written notice to all other parties and afford such parties a reasonable opportunity to protect their interests. Further judgment on the arbitrators' award may be entered in any court having jurisdiction.

- c) **Costs.** Each party shall bear its own costs in both the mediation and the arbitration; however, the parties shall share the fees and expenses of both the mediators and the arbitrators equally.

15. **Non-exclusivity.** Deloitte Advisory may (a) provide any services to any person or entity, and (b) develop for itself, or for others, any materials or processes, including those that may be similar to those produced as a result of the Services, provided that Deloitte Advisory complies with its obligations of confidentiality set forth hereunder.

16. **Non-solicitation.** During the term of this engagement and for a period of one (1) year thereafter, each party agrees that its personnel (in their capacity as such) who had substantive contact with personnel of the other party in the course of this engagement shall not, without the other party's consent, directly or indirectly employ, solicit, engage, or retain the services of such personnel of the other party. In the event a party breaches this provision, the breaching party shall be liable to the aggrieved party for an amount equal to thirty percent (30%) of the annual base compensation of the relevant personnel in his or her new position. Although such payment shall be the aggrieved party's exclusive means of monetary recovery from the breaching party for breach of this provision, the aggrieved party shall be entitled to seek injunctive or other equitable relief. This provision shall not restrict the right of either party to solicit or recruit generally in the media.

17. **Entire Agreement, Amendment, and Notices.** These terms, and the Engagement Letter, including attachments, constitute the entire agreement between the parties with respect to this engagement; supersede all other oral and written representations, understandings, or agreements relating to this engagement; and may not be amended except by a written agreement signed by the parties. In the event of any conflict or ambiguity between these terms and the Engagement Letter, these terms shall control. All notices hereunder shall be (a) in writing; (b) delivered to the representatives of the parties at the addresses set forth in the Engagement Letter, unless changed by either party by notice to the other party; and (c) effective upon receipt.

18. **Governing Law, Jurisdiction and Venue, and Severability.** These terms, the Engagement Letter, including attachments, and all matters relating to this engagement shall be governed by, and construed in accordance with, the laws of the State of New York (without giving effect to the choice of law principles thereof). If any provision of these terms or the Engagement Letter is unenforceable, such provision shall not affect the other provisions, but such unenforceable provision shall be deemed modified to the extent necessary to render it enforceable, preserving to the fullest extent permissible the intent of the parties set forth herein.

## Appointment

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**From:** Minix, Connie (DTMB) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=5959DEBBA9514353BF423AE78D6BB2A6-MINIXC]  
**Sent:** 2/2/2016 9:51:01 AM  
**To:** Roberts, John (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7e46c15ee74741ed9f831f311694c32c-Roberts Joh]; Brownlee, Jeff (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bae5bd3c6f244006a9a672e3df1f299c-Brownlee Jeff]  
**Subject:** 2:20 Phone Call - John Roberts / Jeff Brownlee re: Flint/Emergency Purchasing  
**Location:** Jeff calling John @ [REDACTED]  
**Start:** 2/2/2016 2:20:00 PM  
**End:** 2/2/2016 2:30:00 PM  
**Show Time As:** Tentative

**Required** Roberts, John (DTMB); Brownlee, Jeff (DTMB)

### Attendees:

2/2, 2:20 pm phone call  
John Roberts / Jeff Brownlee  
Jeff calling John @ [REDACTED]

Connie Minix  
Assistant to State Budget Director John S. Roberts  
111 S. Capitol Avenue, Romney Building, 6th Floor  
Lansing, Michigan 48913  
Phone: 517.373.4978 | Cell: 517.897.3519  
E-mail: minixc@michigan.gov <mailto:minixc@michigan.gov>

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From: Roberts, John (DTMB)  
Sent: Monday, February 01, 2016 11:29 PM  
To: Minix, Connie (DTMB)  
Subject: Fwd: Flint/Emergency purchasing

Can you please find time for us to chat?

Begin forwarded message:

From: "Brownlee, Jeff (DTMB)" <BrownleeJ@michigan.gov <mailto:BrownleeJ@michigan.gov>>  
Date: February 1, 2016 at 11:28:11 PM EST  
To: "Roberts, John (DTMB)" <RobertsJ9@michigan.gov <mailto:RobertsJ9@michigan.gov>>  
Subject: Re: Flint/Emergency purchasing  
Call my cell anytime after noon. Thanks, John.

Sent from my iPhone

On Feb 1, 2016, at 11:25 PM, Roberts, John (DTMB) <RobertsJ9@michigan.gov <mailto:RobertsJ9@michigan.gov>> wrote:  
Do you have time to chat tomorrow afternoon?

John Roberts

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**Sent:** Tuesday, February 02, 2016 2:10 PM  
**Subject:** Flint Emergency Purchasing Procedures

Message

**From:** Brownlee, Jeff (DTMB) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BAE5BD3C6F244006A9A672E3DF1F299C-BROWNLEE JEFF]  
**Sent:** 2/2/2016 7:34:29 PM  
**To:** Arbulu, Agustin (MDCR) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0740d0ed4ad944a8ac6e07d5651c8c8c-Arbulu Agus]; Arwood, Steve (LARA) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5807bfc4e8a6451d92dd9add68d26a4b-Arwood Steve]; Clover Adams, Jamie (MDARD) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=43fedfc41ffc4fecb5725fd13289b4f9-Clover Adams Jamie]; Creagh, Keith (DEQ) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=792ccffbe0a340e6845043387b624045-Creagh Keith]; Etue, Kriste (MSP) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8129e075e10b4bfeabc650955941105f-Etue Kriste]; Johnson, Ruth (MDOS) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e6d8746961f4a78863c2f9fc65c903d-Johnson Ruth]; Khouri, Nick (TREASURY) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=07a5c204bc8d4625bc30d4ed6241dadf-Khouri Nick]; Lyon, Nick (DHHS) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cc8bf601f48844a2b44c7e1bda929e38-Lyon Nick]; Maj. Gen. Gregory Vadnais DMVA [gregory.j.vadnais.mil@mail.mil]; McPharlin, Pat (DIFS) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=95c923eb0f664762a29c9a9f7ac3c05c-McPharlin P]; Moritz, William (DNR) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8145b3a52c2b49cc9dd3b6b6953dcf4c-MoritzW]; Roberts, John (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7e46c15ee74741ed9f831f311694c32c-Roberts Joh]; Schuette, Bill (AG) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1b67f1823ed3409582737f68f6a10835-Schuette Bill]; Steudle, Kirk (MDOT) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0b64ddffd5684ac39120c9638a269aac-Steu dle Kirk]; Washington, Heidi E. (MDOC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7c2daaf16289451db47135938397dcab-Washington Heidi E.]; Whiston, Brian (MDE) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=da709a13cf6e4a53a7ca4e6e35638c1e-Whiston Bri]; Winters, Jan (MCSC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0ab7e546e909476882d6cca1f0531dcf-Winters Jan]; Zimmer, Mike (LARA) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4caba7e5810a44e6a27cfb6438c7a8ed-Zimmer Mike]; Allan, Jon (DEQ) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c715659511749958edff29160267ef4-Allan Jon]; Barnes, Jeff (DMVA) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d12381e7548c4c029c6ee7251ad1f370-Barnes Jeff]; Bowen, Scott (MSL) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e9beaf3769304122beae605e92f8c2bc-Bowen M Scott]; Brader, Valerie (LARA) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=537c0c5c3883429c838cb63590536d9a-Brader Vale]; Comai, Stephanie (TIA) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2ffe98d21a2842618242bd9c1a8a1c09-Comai Stephanie]; Deloney, Andrew (LARA) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a1c36a106ca54061bec15da1d4564ae7-Deloney Andrew J]; Elsenheimer, Kevin (MSHDA) [/o=ExchangeLabs/ou=Exchange Administrative Group

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 [/o=ExchangeLabs/ou=Exchange Administrative Group  
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 [/o=ExchangeLabs/ou=Exchange Administrative Group  
(FYDIBOHF23SPDLT)/cn=Recipients/cn=6260ae4e03694064a3a72c142027e01d-Waalkes Mar]

**Subject:** Flint Emergency Purchasing Procedures

**Attachments:** Flint Emergency Purchasing Procedures.pdf

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee

Ofc: 517-284-7003





RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

DAVID B. BEHEN  
DIRECTOR

February 2, 2016

**TO:** State of Michigan Procurement Leadership  
**FROM:** DTMB Procurement  
**SUBJECT:** Genesee County Water Emergency Response - Purchasing Guidance

Thank you to all who are working to support the State of Michigan's Genesee County, City of Flint water emergency response.

Given the complexity and variety of the needs of this emergency effort, the purchasing support required is complex as well. Purchasing protocols have some differences under this declared state of emergency, and meticulous tracking of expenditures is imperative.

The Michigan State Police (MSP) is the lead agency overseeing the situation and managing the State Emergency Operations Center (SEOC). Flint related purchases must first be routed through the appropriate SEOC contact (see attached for an agency roster) to include the SEOC State Director. This is required for all Flint- related purchases without exception. The SEOC financial team is responsible for tracking all expenditures in connection with the emergency efforts.

***Each agency is responsible for its own purchasing transactions. This includes p-card transactions and purchase orders, the tracking of all such transactions, and reporting of those transactions to the appropriate SEOC representative. Failure to properly inform the SEOC financial team of any transaction may result in a forfeiture of any potential reimbursement anticipated by the agency.***

Agency purchasing managers are responsible to supply their agency's SEOC representative with a 24/7 phone number for agency purchasing staff support and request that the SEOC representative involves them in every purchase. (Note: SEOC hours are 8 am to 8 pm, seven days a week at this time.)

***Emergency Purchasing Procedure:***

Public Act 431 of 1984 provides an exception to competitive bidding during a state of emergency. However, responsible purchasing procedures are still the expectation for all procurement professionals (agency purchasing staff).

In addition to the notification and reporting expectations set forth above, transactions should be conducted and/or overseen by procurement professionals, with rare exception, in accordance with the following:

- Each agency makes their own determination when an emergency purchase order is required, and is then responsible for the supporting documentation
- Utilize existing State contracts where possible. Contact DTMB Procurement for help negotiating bulk rates or expedited shipments if needed, and for any concerns related to availability of funds on a contract



- Obtain three quotes whenever reasonably practicable
- Post bids online to the extent practicable
- Please escalate any questions to DTMB Procurement before executing a buy
- DTMB Procurement will assist any agency upon request to address supply chain issues (e.g. working with a national supplier to ensure a high volume supply of water filters are available)
- DTMB-Financial Services is not responsible for issuing emergency purchase orders on behalf of agencies with the exception of information technology related goods and services
- Maintain documentation supporting all transactions. Establish internal protocols to support this such as a single spreadsheet to track agency-wide transactions. Report your agency's expenses to the SEOC Finance team via your SEOC representative.

Questions, concerns, or comments should be directed to:

Primary Contact:

Rebecca Cook, Commodities Division Director

[Cookr6@michigan.gov](mailto:Cookr6@michigan.gov)

[REDACTED]

Secondary Contact:

Jeff Brownlee, Chief Procurement Officer

[brownleej@michigan.gov](mailto:brownleej@michigan.gov)

[REDACTED]

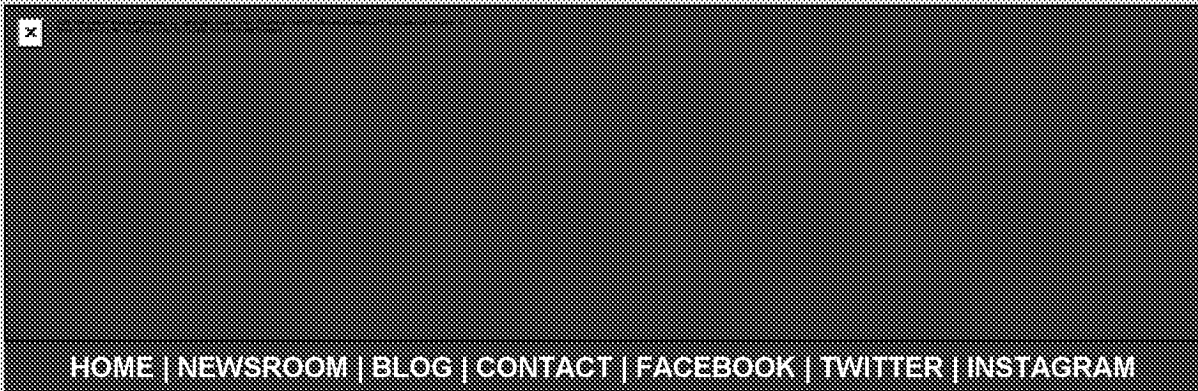
Sincerely,

Jeff Brownlee

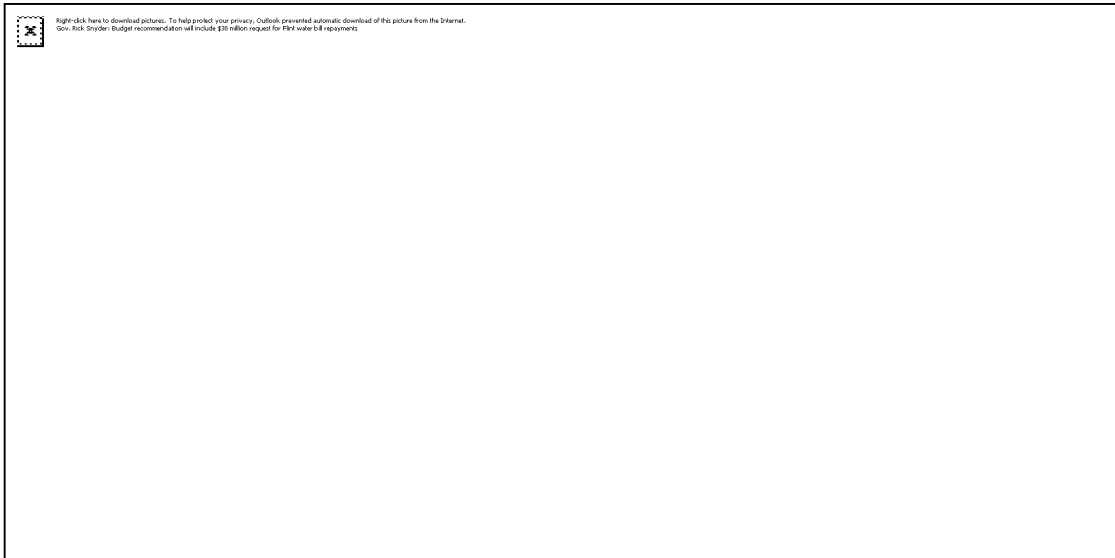
Chief Procurement Officer

State of Michigan

**From:** Governor's Office <governorsoffice@govsubscriptions.michigan.gov>  
**Sent:** Wednesday, February 03, 2016 6:02 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** "Flint residents should not have to pay for water they cannot drink"



## Budget recommendation will include \$30 million request for Flint water bill repayments



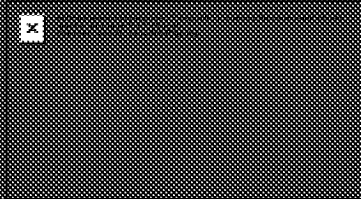
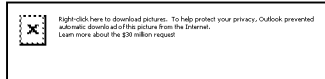
When Governor Rick Snyder presents his budget recommendation next Wednesday, Feb. 10, he will include a \$30 million request for the residents of Flint to keep their water service on and eliminate the need to pay for water they cannot completely trust to drink.

Under the governor's ask, the funding would enable the city of Flint to apply credits for customers on future bills. Estimates show water is roughly 47 percent of billing and sewer costs are around 53 percent. The credit would be applied to consumption usage (roughly 65 percent) of a resident's water portion of the bill, such as for bathing, drinking, cooking, and washing your hands. Residents still would be responsible for paying the sewer portion

of their water bills.

Professor Marc Edwards of Virginia Tech said, "This essentially refunds all the money associated with consumption or consumer use. I think it's an amazing gesture of common sense and good will and it corrects an injustice. I don't think there's a precedent for this. I feel so encouraged by the direction this is going."

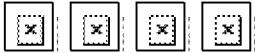
[Click here to learn more about the budget request.](#)



We spoke with Staff Sgt. Thomas Vega about the critical resources they're providing to Flint families every day. He also encouraged residents to pick up and return their water testing kits to Flint fire stations. Test results will be posted online at [www.mi.gov/flintwater](http://www.mi.gov/flintwater). **Click here to watch the video.**

[www.mi.gov/FlintWater](http://www.mi.gov/FlintWater) | [www.HelpForFlint.com](http://www.HelpForFlint.com)

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
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This email was sent to [brownleej@michigan.gov](mailto:brownleej@michigan.gov) on behalf of: The Executive Office of the Governor · 111 South Capitol Avenue · Lansing, MI 48909 · 517-335-7858

**From:** Sustainable City Network <theinbox=scitynetwork.com@mail32.atl11.rsgsv.net> on behalf of Sustainable City Network <theinbox@scitynetwork.com>  
**Sent:** Wednesday, February 03, 2016 7:55 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Top News: Sustainability Education Made Easy

[View this e-mail in your browser.](#)

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Sustainable City Network.

February 3, 2016

sCityNetwork.com

# Sustainability Education Made Easy

## Live and Online Training Opportunities Abound in 2016


*By Randy Rodgers*  
*Publisher & Executive Editor*

Programming plans for the 9th annual Growing Sustainable Communities Conference are under way, and a variety of online training opportunities are available now to anyone interested in learning more about sustainability and networking with colleagues in the field.

Organizers recently issued a Call for Presentations seeking presentation proposals for the conference, which will be held this year on Oct. 4 and 5 at the Grand River Center in Dubuque, Iowa.


The conference, hosted by the City of Dubuque and Sustainable City Network, attracts about 500 attendees each year with 30 workshop sessions, two keynote luncheons, a networking reception, a vendor exhibition and optional mobile tours. The event is supported by Crescent Electric Supply Company and other corporate sponsors.

[Read More...](#)

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Read this article.

**The 9th annual Growing Sustainability Conference will be held Oct. 4-5, 2016 at the Grand River Center in Dubuque, Iowa.**

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**Suez: Thinking Ahead** [Learn more at MySuezWater.com.](#)

### Online Training

#### Green Roofs... Biological-Engineered Stormwater Mitigation Systems

Learn the functionality of green roofs and the determining factors that impact their performance in this 10-hour online course beginning Feb. 23

This online training will be presented in five 2-hour sessions on Feb. 23 & 25, and March 1, 3 and 4, 2016. Each session will be recorded on video, so if you have to miss a live session, you'll have access to the recording on the following day and for 30 days thereafter. Register for both courses by Feb. 1 to take advantage of all discounts. (Group rates are available.)

Millions of square feet of Green Roofs have been installed throughout the United States and Canada. They have been proven to be

## Latest News

### The Joint Commission Awards First Integrated Care Certification

OAKBROOK TERRACE, Ill. -- The Joint Commission's Hospital Accreditation Program announced that Parrish Medical Center, a public, not-for-profit...

### Companies Release Lists of Environmentally Preferable Products

RESTON, Va. -- Eleven furniture manufacturers and two textile suppliers have publicly released lists of products that avoid the use of chemical...

### Groups File Federal Lawsuit to Secure Safe Drinking Water in Flint

FLINT, Mich. -- A coalition of local citizens and national groups filed suit recently seeking federal court intervention to secure access to s...

### FDOT's New Complete Streets Plan Takes Policy into Practice

WASHINGTON -- In September 2014, the Florida Department of Transportation adopted a Complete Streets policy to help make streets safer f...

### Investment Drives Clean Energy Innovation at Federal Facilities

WASHINGTON -- The U.S. Department of Energy announced \$2.85 million in funding for four projects that will advance the development of re...

### Ohio DOT Expected to Repair Priorities

WASHINGTON, D.C. -- In 2008, just 6 percent of roads in Ohio were listed as being in "poor" condition. By 2011, though, that number had balloon...

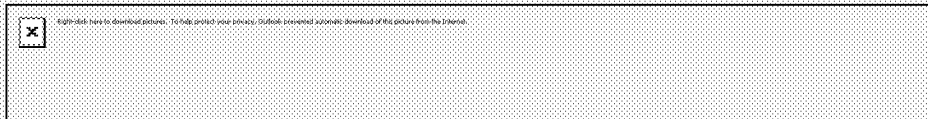
### New Regs Could Bring More Fresh Produce to Underserved Areas

FORT WORTH, Texas -- Fresh produce could become more readily available in Fort Worth neighborhoods if changes to city regulations are approved.

### SUNY Training to Help Prevent Assaults on College Campuses

ALBANY, N.Y. -- A partnership has been announced between the New York State Department of Health and the State University of New York to help ...

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**True North:** Make your health plan more sustainable! [Click here for more information](#)

### ReCharge NY Supports 400,000 Jobs With Low Cost Power

ALBANY, N.Y. -- Governor Andrew Cuomo announced that the ReCharge NY program, which utilizes low-cost power from the New York Power Authority ...

### MWBE Recruitment Initiative Continues for LaGuardia Project

ALBANY, N.Y. -- Governor Andrew Cuomo announced a series of outreach events across the state to encourage minority and women owned-businesses ...

### Free Zika Virus Testing for Some Who Traveled to Exposed Areas

ALBANY, N.Y. -- Governor Andrew Cuomo announced the New York State Department of Health will offer advanced lab testing for individuals with s...

### Colleges Fight for Championship as 2016 RecycleMania Nears

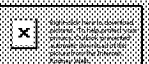
STAMFORD, Conn. -- RecycleMania, a collegiate recycling competition managed by Keep America

effective mitigators of stormwater when their infrastructure components have been designed to meet performance parameters. Failures of green roof installations have been associated with the failure of one or more of the components.

[Read more.](#)

### Leading Successful Projects

Sustainable City Network and NICC are



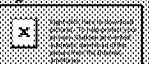
presenting a 12-hour online course on project management, beginning March 15. The course will be held in six 2-hour sessions.

Organizations want team members at all levels to share a common language and process for defining, planning and executing projects and to deliver improved project results faster and more cost-effectively. Leading Successful Projects has been designed for project managers, project sponsors, project team leaders and project team members whether in title or function. The course goal is to provide participants with the skills to define, plan and execute projects for internal and external customers.

[Read more.](#)

### Free Webinar: Miami-Dade County Sustainability

SCN will present a free one-hour



webinar on March 2 featuring Jim Murley, chief resilience officer for Miami-Dade County in southeast Florida and members of his staff. Murley will explain how the county has worked with regional partners, federal and state

Beautiful, is back in action as college campuses b...

### **New York City Restaurants Conserve Water, Improve Bottom Line**

NEW YORK -- New York City Department of Environmental Protection Commissioner Emily Lloyd announced that the 2015 New York City Water Ch...

### **USGBC Releases 2015 Top 10 States for LEED Green Building**

Washington, D.C. -- The U.S. Green Building Council announced its annual Top 10 States for LEED, the world's most widely used and recognized g...

### **EPA Releases Guide for Healthier School Renovations**

LOS ANGELES -- The U.S. Environmental Protection Agency released a new booklet entitled Sensible Guide to Healthier School Renovations...

### **Funds Allocated for Water/Wastewater Infrastructure in California**

CARLSBAD, Calif. -- The U.S. Environmental Protection Agency's Regional Administrator Jared Blumenfeld announced more than \$182 million in fun...

### **Energy Commission Adopts Lighting Standards in California**

SACRAMENTO, Calif. -- The California Energy Commission adopted first-in-the-nation energy standards for the next generation of light bulbs. Th...

## **Product Announcements**

### **Group Provides "How-To" Resources for Resilient Power Systems**

MONTPELIER, Vt. -- Clean Energy Group has launched a new website with updated tools and other information to help building owners who are cons...

### **Samsung, Pattern Development Open Wind Power Facility**

TORONTO, Ont. -- The Arnow Wind power facility in Ontario is now up and running. Samsung Renewable Energy, Inc., and Pattern Energy Group LP a...

### **Los Angeles Commuters to Usher in New Era of Daily Trip Planning**

NORWALK, Conn. -- There's a new transportation app in town, and it's taking on the Los Angeles metro area, with its enormous traffic and commu...

### **Itron Launches Platform for Smarter Energy, Water and Cities**

LIBERTY LAKE, Wash. -- Itron, Inc., a technology and services company dedicated to the resourceful use of energy and water, announced the laun...

### **NJR Clean Energy Ventures Announces Pennsylvania Wind Farm**

WALL, N.J. -- NJR Clean Energy Ventures, the unregulated distributed power subsidiary of New Jersey Resources, announced its fourth onshore wi...

agencies and experts from around the world to develop a plan for addressing sea level rise in one of the most vulnerable locations in the U.S.

In this webinar, sponsored by Crescent Electric Supply Co., Murley will explain how sea level rise is threatening the county's water supply and putting trillions of dollars of development and infrastructure at risk. More importantly, he'll describe how the county plans to address this threat in the years to come.

Register now to attend this live webinar on Wednesday, March 2, beginning at 11 a.m. Pacific Time (noon Mountain, 1 p.m. Central and 2 p.m. Eastern).

*Read more.*

**Sustainable City Network**  
801 Bluff St.  
Dubuque, IA 52001  
563.565.3553

Sustainable City Network operates a website ([www.sCityNetwork.com](http://www.sCityNetwork.com)), customized e-newsletters, online training, conferences and other interactive tools dedicated to providing quality and timely information on sustainability products, services and best practices to leaders in government, education and healthcare.

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Sent to [brownleej@michigan.gov](mailto:brownleej@michigan.gov) | [Unsubscribe](#) | [Update Profile](#)

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**From:** Doll, Jeanette (DTMB)  
**Sent:** Thursday, February 04, 2016 11:03 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Automatic reply: SEOC requests weekly report for DTMB Procurement's Flint vendor inquiry portal

I am currently on special assignment and have limited ability to respond to requests that are not associated with the Flint Water Response.

If you need assistance with a building closure, please contact Central Control at (517) 373-0196 for immediate assistance.

Jeanette

Message

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**From:** McNeely, Jacques (DTMB) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=21FD5C8658E5472280DD06BDA624F158-MCNEELY JACQUES]  
**Sent:** 2/4/2016 1:20:40 PM  
**To:** Brownlee, Jeff (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bae5bd3c6f244006a9a672e3df1f299c-Brownlee Jeff]; Doll, Ryan (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=86b1aa739f394e0ca525f58b4a6816e6-Doll Ryan]  
**Subject:** RE: Flint Emergency Purchasing Procedures

Thank you sir !

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 04, 2016 1:16 PM  
**To:** Doll, Ryan (DTMB)  
**Cc:** McNeely, Jacques (DTMB)  
**Subject:** Re: Flint Emergency Purchasing Procedures

Prisoner healthcare should be announced within two weeks, hopefully closer to a week. Shooting for 3/1 Ad Board.

Sent from my iPhone

On Feb 3, 2016, at 4:40 PM, Doll, Ryan (DTMB) <[DollR@michigan.gov](mailto:DollR@michigan.gov)> wrote:

Thanks Jeff. On an unrelated note, I am hoping that you can help me confirm when the winner of the consolidated healthcare services contract for MDOC will be announced? As there are budget implications associated with the FY17 Executive Budget Recommendation release on Wednesday, it would be very much ideal if the announcement was made in advance of the budget presentation.

Thanks,  
Ryan

**Ryan Doll | Director**

Division of Public Protection



State Budget Office

(517) 241-8685

[michigan.gov/budget](http://michigan.gov/budget)

<image001.png>

**From:** Brownlee, Jeff (DTMB)

**Sent:** Wednesday, February 03, 2016 11:39 AM

**To:** Harkins, Chris (DTMB) <[HarkinsC1@michigan.gov](mailto:HarkinsC1@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Bankowski, Jeffrey S. (DTMB) <[BankowskiJ@michigan.gov](mailto:BankowskiJ@michigan.gov)>; Burger, Penelope (MSP) <[BurgerP@michigan.gov](mailto:BurgerP@michigan.gov)>; Irwin, Sherri (MSP) <[IrwinS@michigan.gov](mailto:IrwinS@michigan.gov)>; Shoemaker, Lisa (DTMB) <[shoemakerl@michigan.gov](mailto:shoemakerl@michigan.gov)>; Doll, Ryan (DTMB) <[DollR@michigan.gov](mailto:DollR@michigan.gov)>

**Subject:** FW: Flint Emergency Purchasing Procedures

Here is a copy of the communication that went out yesterday—the letter I brought up in the 11:00 meeting.

Thanks,

Jeff

**From:** Brownlee, Jeff (DTMB)

**Sent:** Tuesday, February 2, 2016 2:34 PM

**To:** Arbulu, Agustin (MDCR) <[ArbuluA@michigan.gov](mailto:ArbuluA@michigan.gov)>; Arwood, Steve (LARA) <[ArwoodS@michigan.gov](mailto:ArwoodS@michigan.gov)>; Clover Adams, Jamie (MDARD) <[CloveradamsJ@michigan.gov](mailto:CloveradamsJ@michigan.gov)>; Creagh, Keith (DEQ) <[creaghk@michigan.gov](mailto:creaghk@michigan.gov)>; Etue, Kriste (MSP) <[EtueK@michigan.gov](mailto:EtueK@michigan.gov)>; Johnson, Ruth (MDOS) <[JohnsonR43@michigan.gov](mailto:JohnsonR43@michigan.gov)>; Khouri, Nick (TREASURY) <[KhouriN@michigan.gov](mailto:KhouriN@michigan.gov)>; Lyon, Nick (DHHS) <[LyonN2@michigan.gov](mailto:LyonN2@michigan.gov)>; Maj. Gen. Gregory Vadnais DMVA <[gregory.j.vadnais.mil@mail.mil](mailto:gregory.j.vadnais.mil@mail.mil)>; McPharlin, Pat (DIFS) <[McPharlinP@michigan.gov](mailto:McPharlinP@michigan.gov)>; Moritz, William (DNR) <[MoritzW@michigan.gov](mailto:MoritzW@michigan.gov)>; Roberts, John (DTMB) <[RobertsJ9@michigan.gov](mailto:RobertsJ9@michigan.gov)>; Schuette, Bill (AG) <[SchuetteB@michigan.gov](mailto:SchuetteB@michigan.gov)>; Steudle, Kirk (MDOT) <[SteudleK@michigan.gov](mailto:SteudleK@michigan.gov)>; Washington, Heidi E. (MDOC) <[WashingtonM6@michigan.gov](mailto:WashingtonM6@michigan.gov)>; Whiston, Brian (MDE) <[WhistonB@michigan.gov](mailto:WhistonB@michigan.gov)>; Winters, Jan (MCSC) <[WintersJ@michigan.gov](mailto:WintersJ@michigan.gov)>; Zimmer, Mike (LARA) <[zimmerm@michigan.gov](mailto:zimmerm@michigan.gov)>; Allan, Jon (DEQ) <[AllanJ@michigan.gov](mailto:AllanJ@michigan.gov)>; Barnes, Jeff (DMVA) <[barnesj7@michigan.gov](mailto:barnesj7@michigan.gov)>; Bowen, Scott (MSL) <[bowens1@michigan.gov](mailto:bowens1@michigan.gov)>; Brader, Valerie (LARA)

<braderv@michigan.gov>; Comai, Stephanie (TIA) <ComaiS1@michigan.gov>; Deloney, Andrew (LARA) <DeloneyA@michigan.gov>; Elsenheimer, Kevin (MSHDA) <ElsenheimerK@michigan.gov>; Goei, Bing (LARA) <GoeiB@michigan.gov>; Hawks, Orlene (DTMB) <HawksO@michigan.gov>; Kalm, Rick (MGCB) <KalmR@michigan.gov>; Ringler, Doug (OAG) <dringler@audgen.michigan.gov>; Waalkes, Marie (DTMB) <WaalkesM1@michigan.gov>  
**Subject:** Flint Emergency Purchasing Procedures

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee

Ofc: 517-284-7003



Message

---

**From:** Doll, Ryan (DTMB) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=86B1AA739F394E0CA525F58B4A6816E6-DOLL RYAN]  
**Sent:** 2/4/2016 2:01:45 PM  
**To:** Brownlee, Jeff (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bae5bd3c6f244006a9a672e3df1f299c-Brownlee Jeff]  
**Subject:** RE: Flint Emergency Purchasing Procedures

Hi Jeff,

Can you please give me a call when you have a chance?

Thanks,  
Ryan

**Ryan Doll | Director**

Division of Public Protection

State Budget Office

(517) 241-8685

[michigan.gov/budget](http://michigan.gov/budget)



**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 04, 2016 1:16 PM  
**To:** Doll, Ryan (DTMB) <DollR@michigan.gov>  
**Cc:** McNeely, Jacques (DTMB) <mcneelyj@michigan.gov>  
**Subject:** Re: Flint Emergency Purchasing Procedures

Prisoner healthcare should be announced within two weeks, hopefully closer to a week. Shooting for 3/1 Ad Board.

Sent from my iPhone

On Feb 3, 2016, at 4:40 PM, Doll, Ryan (DTMB) <[DollR@michigan.gov](mailto:DollR@michigan.gov)> wrote:

Thanks Jeff. On an unrelated note, I am hoping that you can help me confirm when the winner of the consolidated healthcare services contract for MDOC will be announced? As there are budget implications associated with the FY17 Executive Budget Recommendation release on Wednesday, it would be very much ideal if the announcement was made in advance of the budget presentation.

Thanks,  
Ryan

**Ryan Doll | Director**

Division of Public Protection

State Budget Office

(517) 241-8685

[michigan.gov/budget](http://michigan.gov/budget)

<image001.png>

**From:** Brownlee, Jeff (DTMB)

**Sent:** Wednesday, February 03, 2016 11:39 AM

**To:** Harkins, Chris (DTMB) <[HarkinsC1@michigan.gov](mailto:HarkinsC1@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Bankowski, Jeffrey S. (DTMB) <[BankowskiJ@michigan.gov](mailto:BankowskiJ@michigan.gov)>; Burger, Penelope (MSP) <[BurgerP@michigan.gov](mailto:BurgerP@michigan.gov)>; Irwin, Sherri (MSP) <[IrwinS@michigan.gov](mailto:IrwinS@michigan.gov)>; Shoemaker, Lisa (DTMB) <[shoemakerl@michigan.gov](mailto:shoemakerl@michigan.gov)>; Doll, Ryan (DTMB) <[DollR@michigan.gov](mailto:DollR@michigan.gov)>

**Subject:** FW: Flint Emergency Purchasing Procedures

Here is a copy of the communication that went out yesterday—the letter I brought up in the 11:00 meeting.

Thanks,

Jeff

**From:** Brownlee, Jeff (DTMB)

**Sent:** Tuesday, February 2, 2016 2:34 PM


**To:** Arbulu, Agustin (MDCR) <ArbuluA@michigan.gov>; Arwood, Steve (LARA) <ArwoodS@michigan.gov>; Clover Adams, Jamie (MDARD) <CloveradamsJ@michigan.gov>; Creagh, Keith (DEQ) <creaghk@michigan.gov>; Etue, Kriste (MSP) <EtueK@michigan.gov>; Johnson, Ruth (MDOS) <JohnsonR43@michigan.gov>; Khouri, Nick (TREASURY) <KhouriN@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>; Maj. Gen. Gregory Vadnais DMVA <gregory.j.vadnais.mil@mail.mil>; McPharlin, Pat (DIFS) <McPharlinP@michigan.gov>; Moritz, William (DNR) <MoritzW@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>; Schuette, Bill (AG) <SchuetteB@michigan.gov>; Steudle, Kirk (MDOT) <SteudleK@michigan.gov>; Washington, Heidi E. (MDOC) <WashingtonM6@michigan.gov>; Whiston, Brian (MDE) <WhistonB@michigan.gov>; Winters, Jan (MCSC) <WintersJ@michigan.gov>; Zimmer, Mike (LARA) <zimmerm@michigan.gov>; Allan, Jon (DEQ) <AllanJ@michigan.gov>; Barnes, Jeff (DMVA) <barnesj7@michigan.gov>; Bowen, Scott (MSL) <bowens1@michigan.gov>; Brader, Valerie (LARA) <braderv@michigan.gov>; Comai, Stephanie (TIA) <ComaiS1@michigan.gov>; Deloney, Andrew (LARA) <DeloneyA@michigan.gov>; Elsenheimer, Kevin (MSHDA) <ElsenheimerK@michigan.gov>; Goei, Bing (LARA) <GoeiB@michigan.gov>; Hawks, Orlene (DTMB) <HawksO@michigan.gov>; Kalm, Rick (MGCB) <KalmR@michigan.gov>; Ringler, Doug (OAG) <dringler@audgen.michigan.gov>; Waalkes, Marie (DTMB) <WaalkesM1@michigan.gov>

**Subject:** Flint Emergency Purchasing Procedures

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee

Ofc: 517-284-7003



---

**From:** Bliss, Mike (DTMB)  
**Sent:** Friday, February 05, 2016 10:22 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Automatic reply: FOIA Request From the Detroit Free Press Re: Flint Water

I am out of the office until Monday morning. For urgent matters please contact Tammy Martin @ 517-284-7029 or Genevieve Hayes @ 517-284-7014

---

**From:** John Langeveld <john.langeveld@landstarmail.com>  
**Sent:** Friday, February 05, 2016 2:28 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** LANDSTAR EMERGENCY TRANSPORTATION SERVICES - DISASTER RELIEF - FLINT MI WATER SUPPLY  
**Attachments:** Landstar Emergency Transportation Services 2013.pptx; John T Langeveld; Landstar (JNJ) Contact List -.pdf  
**Importance:** High

**LANDSTAR**  
**Emergency  
Transportation Services**

Dear Mr. Brownlee,

We can help!

Landstar provided the city of New Orleans post Hurricane Katrina with over One hundred Water Tankers to provide **Clean Potable Drinking Water** public schools, hospitals, cruise ships that housed all emergency personnel and other public facilities.

Attached is a document that outlines some of our services.

Landstar offers extensive Emergency Logistics Services:

- Access to over several hundred large 6500 gallon water tankers.
- Straight trucks with lift gates to address any specific need.

**Please let me know if we can be of service during this difficult time with the contamination of the water supply in Flint. We can strategically position Tanks around the city to support both public facilities & the local residential communities.**

**Tankers**



- 6500 Gallon Capacity
- Potable Water



**Please see attached for your Landstar Contact List**  
**(24/7/365) John 908-675-6806**

Thank you,

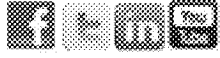
John

John T Langeveld  
Landstar/JNJ Global Logistics  
General Manager  
Ph: 732.292.9070  
Fax: 732.292.9075  
Cell: 908.675.6806  
Email: [john.langeveld@landstarmail.com](mailto:john.langeveld@landstarmail.com)



Web: [www.injgloballogistics.com](http://www.injgloballogistics.com)

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**All Modes of Transportation:**

Truckload • LTL • Heavy Haul / Specialized • Tankers • Expedited • Intermodal • Air • Ocean

Transportation Management Solutions • Warehousing • Cold Chain Logistics • Emergency Transportation Services

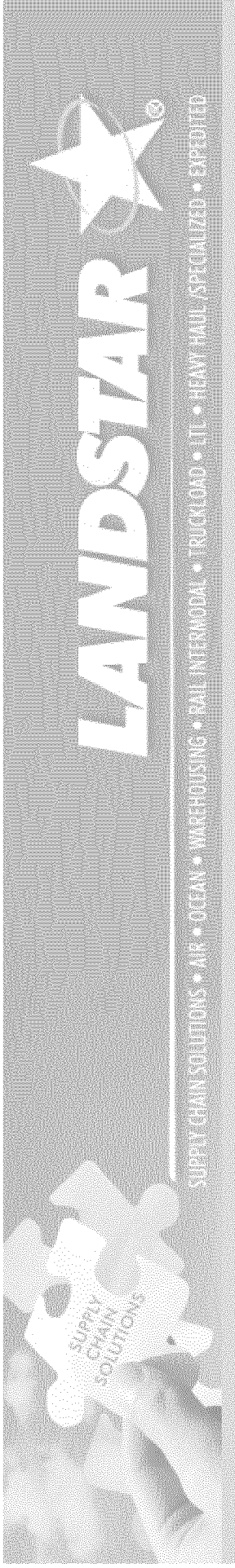
Parcel Shipping Analysis



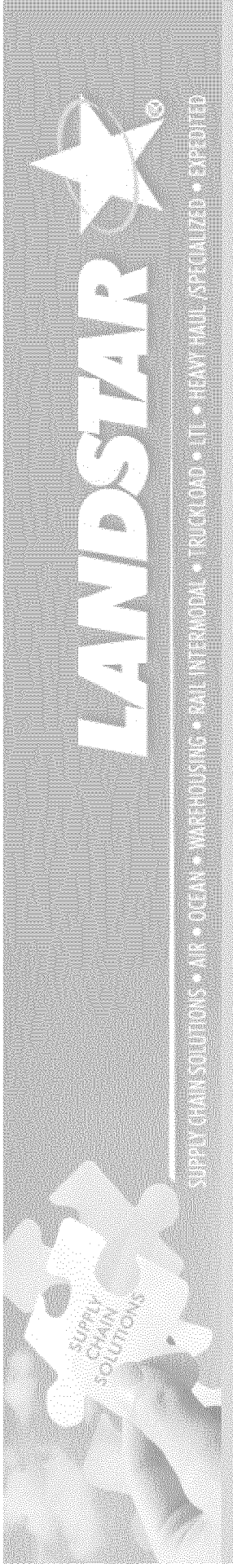
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This email has been checked for viruses by Avast antivirus software.

[www.avast.com](http://www.avast.com)



# Emergency Transportation Services Projects



## Corporate Overview

### Landstar Transportation Logistics

*Landstar Express America*

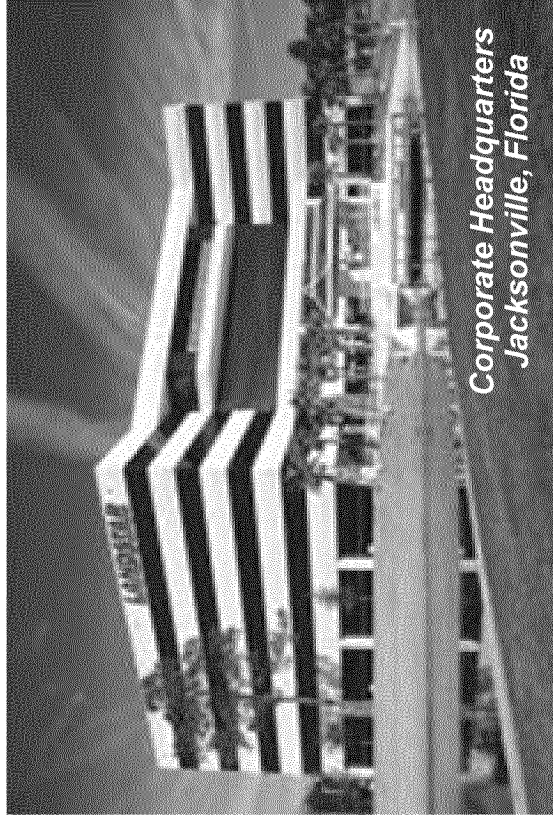
*Landstar Ligon    Landstar Inway*

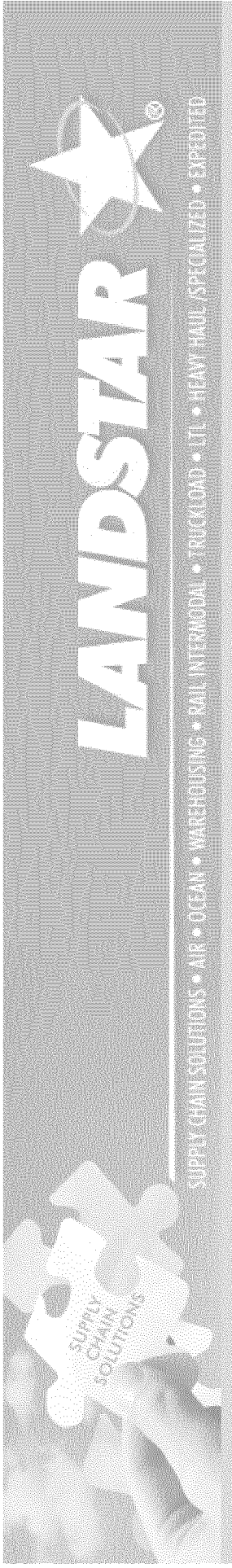
*Landstar Ranger    Landstar Gemini*

*Landstar Global Logistics*

*Landstar Supply Chain Solutions*

- Corporate Sales \$2.65 billion
  - Operating income \$183 million
- Employees - 1,291
- Independent Agents – 1,428
- Business Capacity Owners – 7,871
- Contracts with over 28,495 3<sup>rd</sup> Party Capacity Providers
  - Motor Carriers, Railroads, Ocean Lines & Airlines
- Warehouse Space - 63 facilities & 21.5 Million Square Feet Nationwide
- Publicly Traded on NASDAQ market – LSTR
- Dow Jones Transportation Index



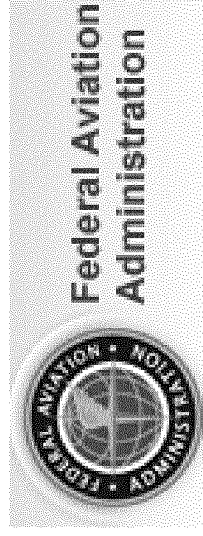


## Past Performance

- Landstar provides transportation and logistics services to NGO, state, and Federal agencies providing support functions under ESF #1, ESF #6 and ESF #7 of the National Response Framework



U.S. Department of  
Health & Human Services



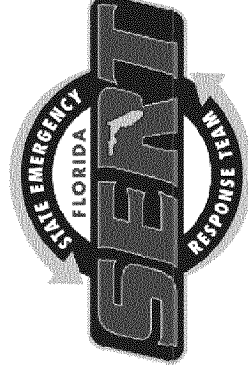
Federal Aviation  
Administration

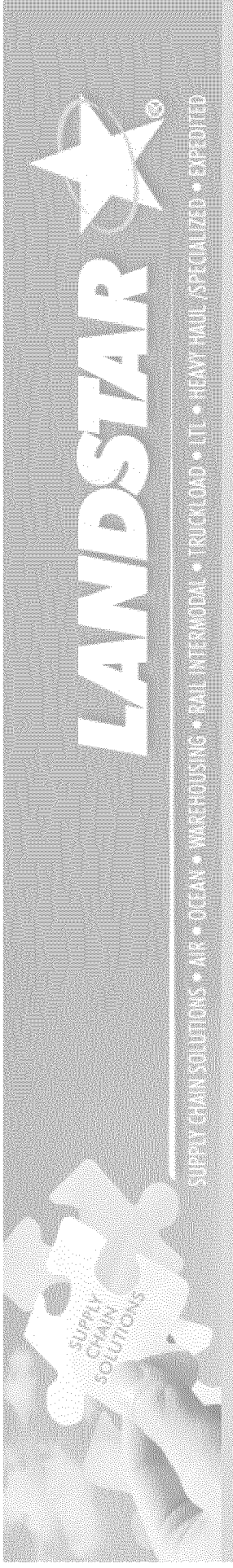


FEMA



Governor's Office





## Past Performance

### 2001 Competitive Contract Award with FAA

#### 9/11 Terrorist Attack on New York & D.C.

- 309 orders, emergency worker buses to & from WTC, straight trucks with lift-gates, flatbeds with forklifts

### 2002 Hurricane Lili

- 39 tasks, 114 orders. shuttle and linehaul trucks
- New IT functionality executed to provide real-time task tracking and web reports

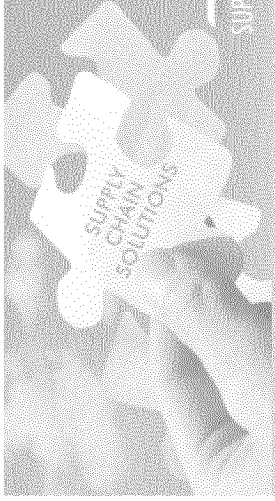
### 2003 Hurricane Isabel

- 97 tasks, 422 orders – shuttle, linehaul, trailer rental, staff Ft. Eustis

### 2004 Hurricanes: Charley, Frances, Ivan, Jeanne

- 575 Tasks, 10,619 orders
- Travel trailer and mobile home shipments
- Created Task Management System for shipment and equipment tracking





SUPPLY CHAIN SOLUTIONS • AIR • OCEAN • WAREHOUSING • RAIL INTERMODAL • TRUCKLOAD • LTL • HEAVY HAUL / SPECIALIZED • EXPEDITED

## Past Performance

### 2005 Hurricanes Dennis, Emily, Katrina, Rita, Ophelia, Wilma

- 593 Tasks, 25,086 orders
- Post Katrina evacuation
  - 1,000 buses (65,000 people) & 100 flights (24,000 people)



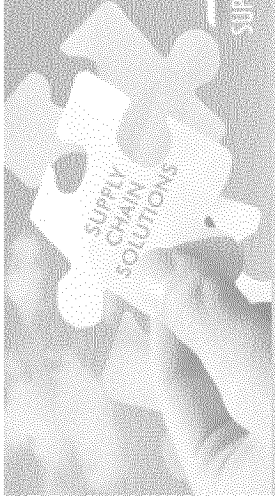
### 2006 Hurricane Ernesto, Floods in NY & PA, Fires in CA

- Pre-positioning trailers, forklifts
- 609 tasks, 9,911 orders

### 2007 FEMA Prepositioning, Hurricane Dean, California Fires, Kansas Flood

- 183 tasks, 2,730 orders





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## Past Performance

**2008**    **1) Hurricanes Gustav & Ike**

**2) FEMA, TPASS, LA GOSHEP, FDEM**

- 183 tasks, 2,730 orders

**3) Louisiana Evacuation**

- 650 buses

**4) HHS**

- 63 Tasks

**2009**    **1) Presidential Declarations**

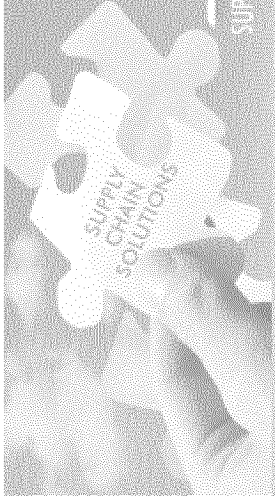
- Winter storms 1812-1828, North Dakota and Georgia Flooding 1829 & 1858, American Samoa Tsunami 1859
- 100 tasks

**2) North Carolina & Florida – H1N1 supplies**

**3) HHS**

- 39 tasks





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## Past Performance

### 2010 1) Hurricanes Alex and Earl

- 9 tasks, 170 orders

### 2) Floods in North Dakota and Tennessee

- 9 tasks, 234 orders

### 3) FEMA Disaster Prepositioning

- 69 tasks, 171 orders

### 4) Haiti Earthquake

- 1 tasks, 415 orders

### 2011

#### 1) Presidential Declarations

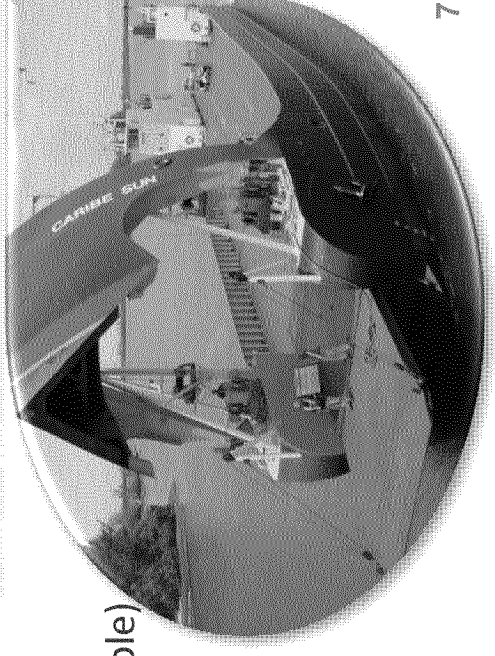
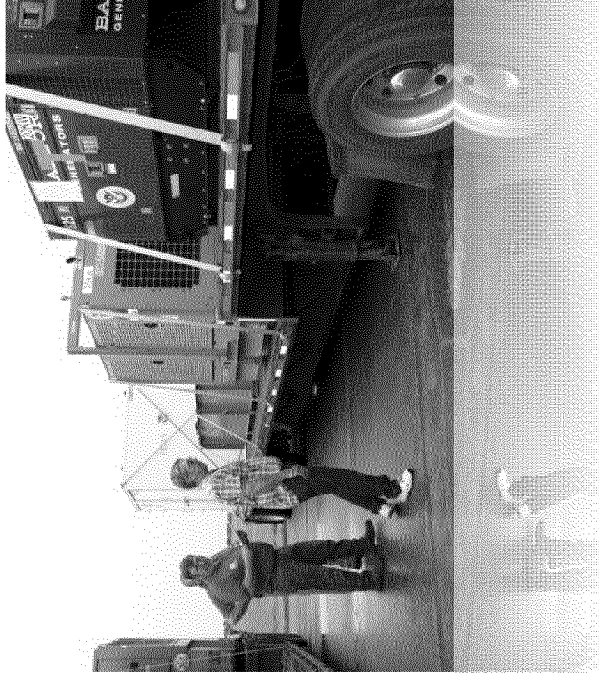
- Floods, Tornadoes, and Tropical Storms (Lee, Nicole)
  - 27 tasks, 677 orders

#### 2) Hurricane Irene

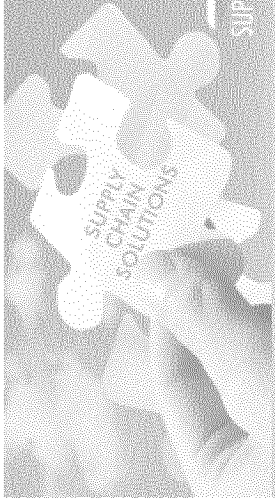
- 21 tasks, 509 orders

### 3) FEMA Disaster Prepositioning

- 51 tasks, 419 orders



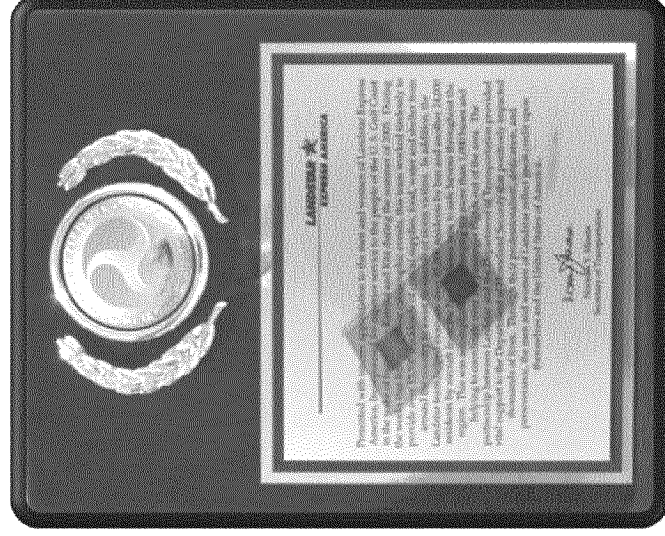




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## Recognition For Distinguished Service

**Secretary N. Mineta,  
DOT, Recognized  
Landstar Operators as  
Unsung Hero's of  
Hurricane Katrina**



**Landstar President &  
CEO Henry Gerkens  
Honored in Washington  
for Distinguished  
Service During  
Hurricane Katrina & Rita  
by Secretary N. Mineta**

**[Speaker Notes For Slide: 8]**

**David Miller**



# LANDSTAR<sup>®</sup>

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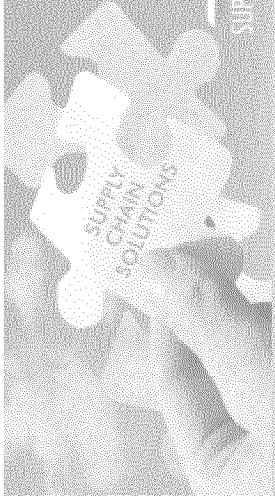
## Emergency Operations Center

### Experienced & Dedicated Professionals

- ▶ Concurrent staff operations and Task Management System updates in Jacksonville, FL and Rockford, IL



- ▶ Fully Staffed by Landstar personnel, 24x7x365
- ▶ Experienced and trained staff to direct drivers and service providers under state and federal emergency situation
- ▶ Provides overall situational awareness for each state or Federal agency

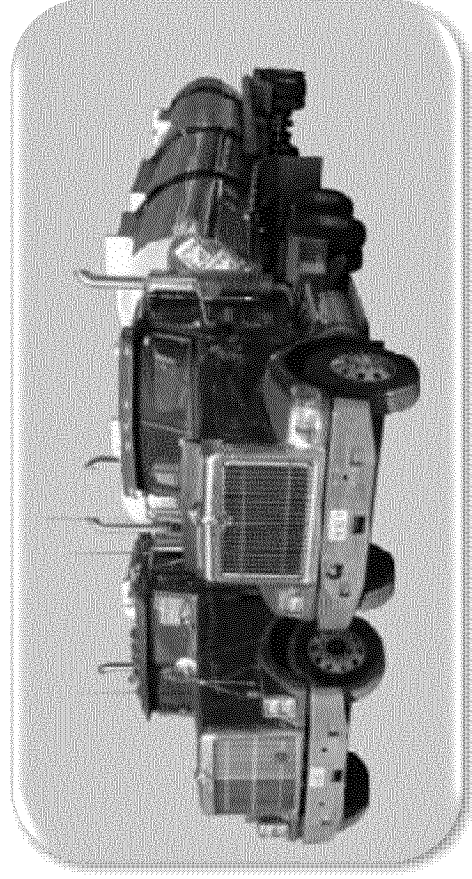


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## Motor-Coach Passenger Service

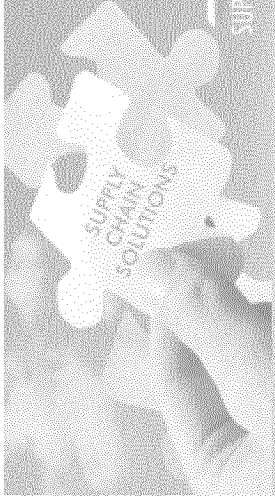
- Move emergency services personnel as a team
- Door-to-Aircraft service for charters



## Emergency Fuel Delivery

- Fuel delivered in bulk or directly to equipment
  - Keep equipment at staging area ready to go
  - Fuel vehicles, reefer trailers, and generators in the field
  - Teaming agreement with Foster Fuels, Inc.

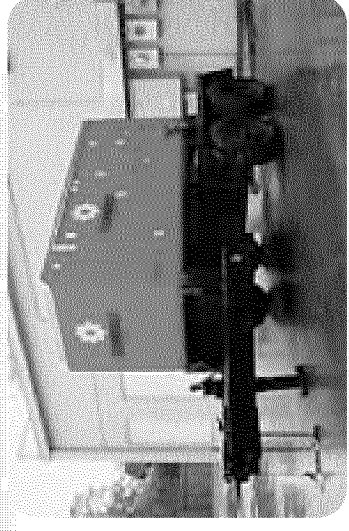
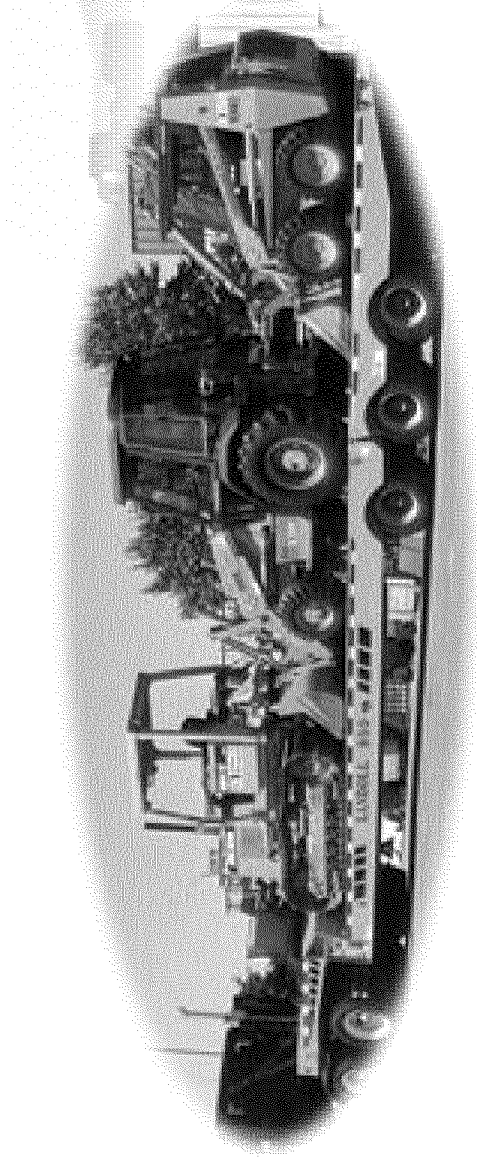
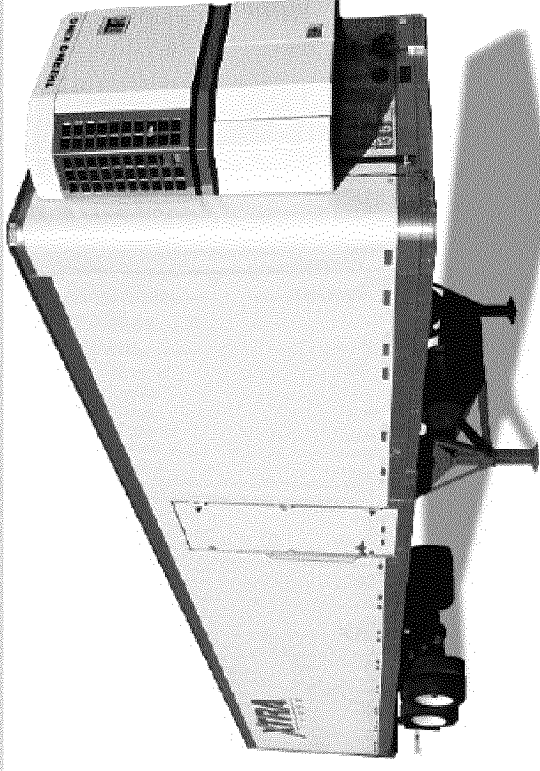


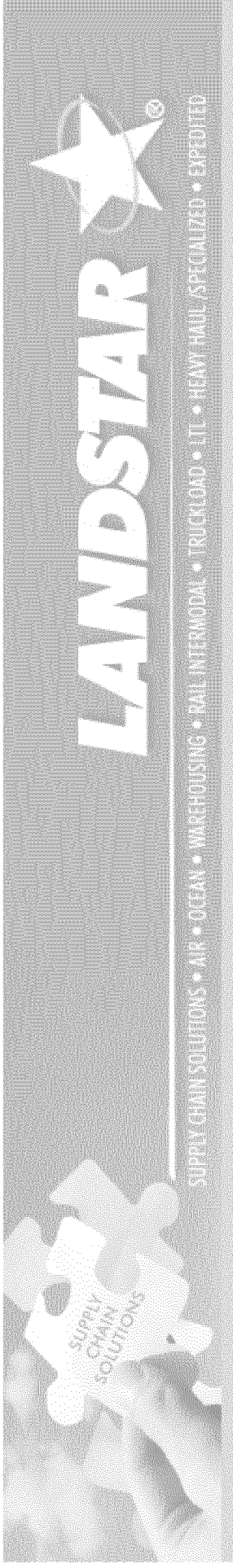


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## Trailers, Material Handling Equipment and Services

- Lease dry van, refrigerated, specialized trailers, and material handling equipment
- Maintenance and fueling of trailer equipment at staging areas





## Task Management System

*The only transportation management system designed to track all the shipments and services ordered for emergency response!*



- Event-wide transportation situational awareness
- Every shipment on every task is tracked in 2-4 hour intervals around the clock
- Detailed pro-active communications with your EOC, vendor, and the POD

# LANDSTAR/JNJ Team Customer Service Contact List

## Weekday Coverage

### **Christine Gibbons | LANDSTAR**

Operations Manager

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

[Christine.gibbons@landstarmail.com](mailto:Christine.gibbons@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **Dolores Fulgham | LANDSTAR**

Operations / Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

[Dolores.fulgham@landstarmail.com](mailto:Dolores.fulgham@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **Mike White | LANDSTAR**

Operations / Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 732-606-6266

[Mike.white@landstarmail.com](mailto:Mike.white@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **Rose Polk | LANDSTAR**

CSR

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

[Rosemary.polk@landstarmail.com](mailto:Rosemary.polk@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **Kathy Langeveld | LANDSTAR**

Administration

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

[Kathy.langeveld@landstarmail.com](mailto:Kathy.langeveld@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

## Weekend Coverage

### **Mike White | LANDSTAR**

Operations / Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 732-606-6266

[Mike.white@landstarmail.com](mailto:Mike.white@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **John Langeveld | LANDSTAR**

Sales / Operations Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 908-675-6806

[John.langeveld@landstarmail.com](mailto:John.langeveld@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

## Weekend Night Coverage

### **Mike White | LANDSTAR**

Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 732-606-6266

[Mike.white@landstarmail.com](mailto:Mike.white@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **John Langeveld | LANDSTAR**

Sales / Operations Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 908-675-6806

[John.langeveld@landstarmail.com](mailto:John.langeveld@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)



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- *1-888-292-6504*





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**From:** Riehle, Jenni (DTMB)  
**Sent:** Friday, February 05, 2016 2:41 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: LANDSTAR EMERGENCY TRANSPORTATION SERVICES - DISASTER RELIEF - FLINT MI WATER SUPPLY

I'll put it in the database, thanks!

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Friday, February 05, 2016 2:37 PM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** Fwd: LANDSTAR EMERGENCY TRANSPORTATION SERVICES - DISASTER RELIEF - FLINT MI WATER SUPPLY

FYI

Sent from my iPhone

Begin forwarded message:

**From:** "John Langeveld" <[john.langeveld@landstarmail.com](mailto:john.langeveld@landstarmail.com)>  
**To:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** LANDSTAR EMERGENCY TRANSPORTATION SERVICES - DISASTER RELIEF - FLINT MI WATER SUPPLY

---

**From:** Dept. Technology, Management & Budget <dtmb@govsubscriptions.michigan.gov>  
**Sent:** Friday, February 05, 2016 2:42 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Enterprise Procurement: Vendor Sales for Flint Purchases



Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.  
EP Banner Landscape

Enterprise Procurement,

Vendors who are interested in selling goods or services to the state to assist in the Flint water emergency should be referred to the "[Flint Emergency Purchasing](#)" portal found on the Contract Connect website.

By submitting their information through the portal, we ensure that all solutions are collected and reviewed by the appropriate parties. Vendors should also register their businesses on [www.Buy4Michigan.com](http://www.Buy4Michigan.com) and on the Contract and Payment Express at [www.michigan.gov/cpexpress](http://www.michigan.gov/cpexpress).

We're Better Together;

Better Enterprise Wide

---

**Enterprise Procurement \* We're Better Together; Better Enterprise Wide**

You are receiving this email because you are directly or indirectly involved in procurement functions at the State of Michigan. If you have questions about your subscription, please contact [RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)

---

This email was sent to [brownleej@michigan.gov](mailto:brownleej@michigan.gov) using GovDelivery, on behalf of DTMB · Lewis Cass Building · 320 South Walnut Street · Lansing, MI 48933 517-373-1004

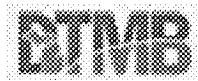
---

**From:** Troub, Shelby (DTMB)  
**Sent:** Tuesday, February 09, 2016 8:40 AM  
**To:** Droste, LeAnn (LARA); Towne, Karen (LARA); Zimmer, Mike (LARA)  
**Cc:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Contractual Services for City of Flint Schools  
**Attachments:** Emergency report letter.doc

LeAnn,

Can you please prepare an emergency report letter and get an authorized signature for the memo you sent. Please let me know if you have any questions.

**Shelby Troub**  
**Secretary of State Administrative Board**  
**Department of Technology, Management and Budget**  
**1<sup>st</sup> Floor, Constitution Hall**  
**(517) 284-7028**  
[troubS1@michigan.gov](mailto:troubS1@michigan.gov)  
**WEBSITE – [www.michigan.gov/adboard](http://www.michigan.gov/adboard)**



---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 08, 2016 5:16 PM  
**To:** Troub, Shelby (DTMB) <[TroubS1@michigan.gov](mailto:TroubS1@michigan.gov)>  
**Cc:** Redford, James (GOV) <[RedfordJ@michigan.gov](mailto:RedfordJ@michigan.gov)>  
**Subject:** FW: Contractual Services for City of Flint Schools

Shelby,

Let's make sure we have a method for capturing the after-the-fact Ad Board notifications that are likely to continue for emergency Flint-related purchases for some time. Thank you.

Thanks,  
Jeff

---

**From:** Burton, Diane (LARA)  
**Sent:** Monday, February 8, 2016 4:58 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Cc:** Zimmer, Mike (LARA) <[zimmerm@michigan.gov](mailto:zimmerm@michigan.gov)>; Towne, Karen (LARA) <[TowneK2@michigan.gov](mailto:TowneK2@michigan.gov)>; Droste, LeAnn (LARA) <[drostel1@michigan.gov](mailto:drostel1@michigan.gov)>  
**Subject:** Contractual Services for City of Flint Schools

Attached please find an electronic copy of the signed memo to the State Administrative Board from Director Mike Zimmer concerning contracted plumbing services for Flint Schools.

Diane F. Burton

*Senior Executive Management Assistant to*

*Director Mike Zimmer*

Michigan Dept. of Licensing and Regulatory Affairs

611 W. Ottawa St.

PO Box 30004

Lansing, MI 48909

Phone: (517) 241-7124

Fax: (517) 373-2129



Date

Ms. Shelby Troub, Secretary  
State Administrative Board  
Department of Management and Budget  
1st Floor, Constitution Hall  
525 West Allegan  
Lansing, MI 48933

Dear Ms. Troub:

Subject:       Emergency Purchase Order

This report of an emergency purchase order of \$ Amount with Vendor for Service/Commodity is provided in accordance with Administrative Guide Procedure 0620.02.

Explain why the agency was unable to wait for approval by the State Administrative Board.

Explain briefly what you did to choose this vendor.

This emergency purchase is necessary because State the threat to public health or safety.

If you have any questions, please call me at Phone number.

Sincerely,

Insert Name (This should be prepared by someone with departmental signature authority  
Title           for a contract of at least the value of the emergency purchase.)

---

**From:** John Langeveld <john.langeveld@landstarmail.com>  
**Sent:** Tuesday, February 09, 2016 9:00 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Landstar Emergency Transportation Services - Southfield MI

Dear Mr. Brownlee,



## Emergency Transportation Services

- We Can Help!
- 293,809 cases of bottled water have been distributed in Flint since January 9th = 705,120 Bottles of water
  - 705,120 Bottles of water = 11,916,528 Ounces of water
    - 1 Water Tanker Holds 832,000 Ounces of water
    - 11,916,528 Ounces of water = 14 Water Tankers
- Recycling can handle only so much volume - Water Tankers = No Pollution of bottles in the City Landfills



Dear Logistics Chief,

Landstar provided the city of New Orleans post Hurricane Katrina with over One hundred Water Tankers to provide **Clean Potable Drinking Water** public schools, hospitals, cruise ships that housed all emergency personnel and other public facilities.

Attached is a document that outlines some of our services.

Landstar offers extensive Emergency Logistics Services:

- Access to over several hundred large 6500 gallon water tankers.
- Straight trucks with lift gates to address any specific need.

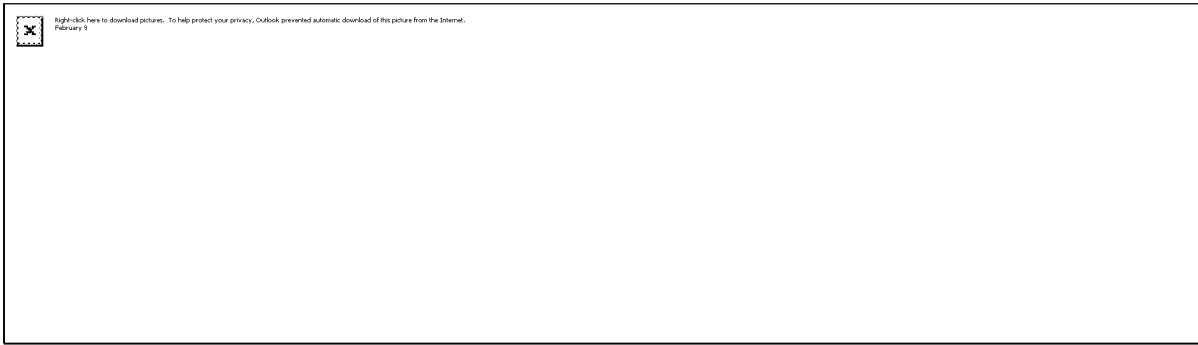
**Please let me know if we can be of service during this difficult time with the contamination of the water supply in Flint. We can strategically position Tanks around the city to support both public facilities & the local residential communities.**

## **Tankers**



---

**From:** Governor's Office [mailto:governorsoffice@govsubscriptions.michigan.gov]  
**Sent:** Tuesday, February 09, 2016 7:46 PM  
**To:** John.langeveld@landstarmail.com  
**Subject:** Tuesday, Feb. 9 update from the Flint Water Response Team



This daily update is being issued in order to provide the latest information regarding actions and available resources.

[LIVE at 11 AM tomorrow: Governor Rick Snyder presents his FY 2017 budget](#)



Governor Rick Snyder will present his FY 2017 budget live tomorrow at 11 am. [You can watch it at www.mi.gov/MIBudget](http://www.mi.gov/MIBudget). Join the conversation online using the hashtag #MIBudget.

[Over 2,000 volunteers have volunteered their time to assist Flint residents during the water emergency](#)

Volunteers are coordinated through the Volunteer Reception Center, operated jointly by the American Red Cross and United Way of Genesee County. These volunteers have performed numerous tasks throughout the community from delivering water resources door-to-door to assembling water test kits. [Click here to learn more.](#)

[Outreach to Flint's blind community helps ensure access to information and resources](#)

The Bureau of Services for Blind Persons (BSBP) is working to ensure Flint's blind community has access to all information and resources related to the Flint water emergency. Bureau staff contacted nearly 40 BSBP clients living in Flint by either home visit or phone to ensure they had access to all health-related water emergency information and to offer assistance in obtaining bottled water, filters, water replacement cartridges and water testing kits.

Flint families need critical clean water resources. Since January 9, the state has distributed:

- 293,809 cases of bottled water
- 104,256 water filters
- 210,596 replacement cartridges
- 35,499 water testing kits

## REMINDERS

- For Flint water assistance: Dial United Way 211 or visit [www.mi.gov/FlintWater](http://www.mi.gov/FlintWater)
- To donate or volunteer: visit [www.HelpForFlint.com](http://www.HelpForFlint.com)



- Residents should install filters to their taps to ensure they have immediate and ongoing access to safe water. Only run cold water through the water filter and use filtered water for drinking and cooking. Monitor the cartridge on the filter and replace as needed.

#### WATER RESOURCE LOCATIONS

These sites are open seven days a week from 9 a.m. to 9 p.m. with the following resources:

- Bottled water
- Water filters
- Replacement cartridges for water filters
- Water testing kits pick-up
- Drop-off location for water testing kits

Fire Station #1  
310 East 5th St.  
Flint, MI 48502

Fire Station #3  
1525 Martin Luther King Ave.  
Flint, MI 48503

Fire Station #5  
3402 Western Rd.  
Flint, MI 48506

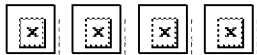
Fire Station #6  
716 West Pierson Rd.  
Flint, MI 48505

Fire Station #8  
202 East Atherton Rd.  
Flint, MI 48507

We will continue to work to improve the water situation in Flint. Community members and local officials are working together to make sure we hear and respond to concerns. Governor Snyder will continue to keep you updated on the latest news and information. **If you don't find the resources you need by dialing United Way 211 please call the Governor's office directly at 517-335-7858.**

---

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---


This email was sent to [John.langeveld@landstarmail.com](mailto:John.langeveld@landstarmail.com) on behalf of: The Executive Office of the Governor · 111 South Capitol Avenue · Lansing, MI 48909 · 517-335-7858



This email has been checked for viruses by Avast antivirus software.  
[www.avast.com](http://www.avast.com)

**From:** Sustainable City Network <theinbox=scitynetwork.com@mail180.atl101.mcdlv.net>  
on behalf of Sustainable City Network <theinbox@scitynetwork.com>  
**Sent:** Wednesday, February 10, 2016 7:49 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Top News: Portland Works for Social Equity


[View this e-mail in your browser.](#)



February 10, 2016

sCityNetwork.com

FROM OUR VALUED SPONSOR



**Crescent Electric:** High Bay LED lights have a 50,000 hour life expectancy and a 5-year warranty. [Contact us for an energy audit.](#)

# Portland Works for Social Equity

## 'Community' Redefined as More Than a Shared Geography


*By F. Alan Shirk*


Portland, Ore., bills itself as "The city that works," and, in the early 21st Century, is a city that is working in spite of some tough challenges.


A good example is the cutting-edge Diversity and Civic Leadership (DCL) program introduced in 2006 and operated by the city's Office of Neighborhood Involvement (ONI). DCL's goal is to support efforts to build the organizational and communication capacity of community organizations of color, immigrant/refugee organizations and other agencies underrepresented in government.

The revolutionary DCL program is a marked departure from how Portland and other American cities have traditionally organized and served neighborhoods.

Following a major 2005 policy review, known as Community Connect, city officials and key leaders "determined that not everyone defines their community by their physical surroundings," according to an article written by Portland officials and published in the National Civic Review.

**Portland's Diversity and Civic Leadership Organizing Project helped grantees develop culturally appropriate means to build community identity and maintain strong communication among community members and public agencies.**

**Online Training**

**Green Roofs... Biological-Engineered Stormwater Mitigation Systems**  
Learn the functionality of  green roofs and the determining factors that impact their performance in this 10-hour online course beginning Feb. 23.

This training will be presented in five 2-hour sessions Feb 23-March 4, 2016. Attend live or via on-demand video (Group rates are available.)

Millions of square feet of Green Roofs have been installed throughout the U.S. and Canada. They have been

[Read More...](#)

## Latest News

### President's 2017 Budget Proposes \$1.2 Billion for the USGS

WASHINGTON -- The President's fiscal year 2017 budget request for the U.S. Geological Survey reflects the USGS's vital role in addressin...

### Renewable Fuels from Algae Boosted by NREL Refinery Process

WASHINGTON -- A new biorefinery process developed by scientists at the Energy Department's National Renewable Energy Laboratory has prov...

### Ohio State Part of National Project to Improve Early Education

COLUMBUS, Ohio -- A team of researchers from the Ohio State University has received a \$4.5 million federal grant as part of a national effort ...

### Customers Can Go 100% Solar with PG&E's Solar Choice Program

SAN FRANCISCO -- Pacific Gas and Electric Company launched PG&E's Solar Choice program, extending the option for 100 percent solar...

### Innovative E-Waste Recycling Program Yields Initial Success

ALBANY, N.Y. -- New York State Department of Environmental Conservation Acting Commissioner Basil Seggos released DEC's initial E-Waste Recycl...

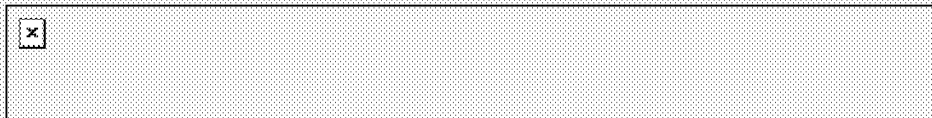
### Grants to Support Colleges and Universities

ALBANY, N.Y. -- Governor Andrew Cuomo announced \$35.3 million in grants for capital projects at higher education institutions across the state...

### Largest Healthcare-Based Solar Project in New York Launched

ALBANY, N.Y. -- Governor Andrew Cuomo announced the largest state-supported solar project for healthcare organizations in New York. The projec...

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**Suez. Thinking Ahead** - [Learn more at MySuezWater.com](http://MySuezWater.com)

### Energy Department to Lower Solar Energy Deployment Barriers

WASHINGTON -- The U.S. Department of Energy announced \$21 million in new funding to lower solar energy deployment barriers and expand ac...

### Sampling Confirms Lead-Removal Filters Working as Expected

FLINT, MICH. -- The U.S. Environmental Protection Agency released early sampling results showing that lead-removal filters are working as expe...

### City, State Partners Announced in Better Buildings SEED Collaborative

WASHINGTON -- As part of the Better Buildings Initiative, the Energy Department featured 12 new partnerships with cities, counties and s...

### EPA Study Finds Electronics Recycling Standards are Well Implemented

WASHINGTON -- The U.S. Environmental Protection Agency released a study assessing the

proven to be effective mitigators of stormwater when their infrastructure components have been designed to meet performance parameters. Failures of green roof installations have been associated with the failure of one or more of the components.

[Read more.](#)

### Leading Successful Projects

Sustainable City Network and NICC are presenting a 12-hour online course on project management, beginning March 15. The course will be held in six 2-hour sessions.

Organizations want team members at all levels to share a common language and process for defining, planning and executing projects and to deliver improved project results faster and more cost-effectively. Leading Successful Projects has been designed for project managers, sponsors, team leaders and team members whether in title or function. The course goal is to provide participants with the skills to define, plan and execute projects for internal and external customers.

[Read more.](#)

### Free Webinar: Miami-Dade County Sustainability

SCN will present a free one-hour webinar on March 2 featuring Jim Murley, chief resilience officer for Miami-Dade County in southeast Florida and members of his staff. Murley will explain how the county has worked with regional partners, federal and state

implementation of the two third-party certificatio...

## HUD Considers New Rule on "Over Income" Public Housing Residents

WASHINGTON, Wash. -- The U.S. Department of Housing and Urban Development announced the agency is considering a new rule to ensure that indivi...

## Murray Proposes to Expand Levy to Support Affordable Housing

SEATTLE -- Continuing a 35-year history of public investment in affordable housing, Seattle Mayor Ed Murray announced his proposal to r...

## Partners to Revitalize Neighborhoods through Local Food Enterprises

SAN FRANCISCO -- On behalf of the White House Rural Council, six federal agencies joined to announce 27 communities selected to participate in ...

FOR OUR READERS



**4-Hour Online Course:** Life Cycle Sustainability Assessment - [Click here for more information.](#)

## Product Announcements

### Invenergy to Provide Clean Power to 3M Company

CHICAGO -- Invenergy recently announced that it has signed a 120 MW wind power purchase agreement with 3M to provide the global science-...

### Altus Power Brings Solar Power to New Jersey School District

GREENWICH, Conn. -- Altus Power America announced the completion of two solar power systems, one at the Atlantic County Institute of Technolog...

### PPG, Bridgestone to Develop Fuel-Efficient Truck, Bus Tires

PITTSBURGH, Pa. -- PPG announced that the U.S. Department of Energy is providing funding to support a \$1.25 million collaborative project with...

### School Completes Construction of Solar Generation Project

BALTIMORE -- Constellation and Elmer A. Henderson: A Johns Hopkins Partnership School, a K-8 Baltimore City public school operated by the...

agencies and experts from around the world to develop a plan for addressing sea level rise in one of the most vulnerable locations in the U.S.

In this webinar, sponsored by Crescent Electric Supply Co., Murley will explain how sea level rise is threatening the county's water supply and putting trillions of dollars of development and infrastructure at risk. He'll also describe how the county plans to address this threat in the years to come.

Register now to attend on Wednesday, March 2, beginning at 11 a.m. Pacific Time (noon Mountain, 1 p.m. Central and 2 p.m. Eastern)

[Read more.](#)

Sustainable City Network  
601 Bluff St  
Dubuque, IA 52001  
563-585-3553

Sustainable City Network operates a website ([www.sCityNetwork.com](http://www.sCityNetwork.com)), customized e-newsletters, online training, conferences and other interactive tools dedicated to providing quality and timely information on sustainability products, services and best practices to leaders in government, education and healthcare.

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Sent to [brw@legis.michigan.gov](mailto:brw@legis.michigan.gov) | [Unsubscribe](#) | [Update Profile](#)

Message

**From:** Cook, Rebecca (DTMB) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=2C072214BC9F472783DB4BB8C06DF01C-COOK REBECCA]  
**Sent:** 2/11/2016 12:53:46 PM  
**To:** Maynard, Sharon (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e8d9eea0f0574c20b7001cc7f70a5771-Maynard Sharon]  
**CC:** Brownlee, Jeff (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bae5bd3c6f244006a9a672e3df1f299c-Brownlee Jeff]  
**Subject:** FW: Flint Briefing - Melissa - Water Sampling Bottles

I will be creating a phone sheet as well.

Most other buyers do not have pending issues/orders for a separate briefing.

**From:** Sambiagio, Melissa (DTMB)  
**Sent:** Thursday, February 11, 2016 12:29 PM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Cc:** Premoe, Tara (DEQ) <PremoeT@michigan.gov>  
**Subject:** RE: Flint Briefing

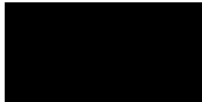
Rebecca:

Below is the contact information for my two contracts currently supporting the Flint effort. No issues are pending. Presently, there are 40,000+ bottles in the warehouse. Approximately 20,000 are prepped and ready to go and the other 20,000 should be ready by weeks end. DEQ and the SEOC believe this will be more than adequate to meet their needs for an extended period of time. The agreed upon process with the agency procurement office, the lab, and SEOC personnel is that all contact and orders be sourced through Tara Premoe and myself. We hold weekly status meetings, with all parties including SEOC, to verify current inventory, pending issues, and any other needs.

Contact Info:

<u>Company</u>	<u>Contact Name</u>	<u>Cell phone number</u>	<u>Email</u>
VWR	Nina Cole		<a href="mailto:nina_cole@vwr.com">nina_cole@vwr.com</a>
VWR	Andy Garrison		<a href="mailto:andy_garrison@vwr.com">andy_garrison@vwr.com</a>
VWR	Matt Miles		<a href="mailto:matthew_miles@vwr.com">matthew_miles@vwr.com</a>

VWR                      Adrian Scioli  
VWR                      Lewis McMillan



[adrian\\_scioli@VWR.com](mailto:adrian_scioli@VWR.com)  
[lewis\\_mcmillan@vwr.com](mailto:lewis_mcmillan@vwr.com)

Scientific Specialties does not have a 24/7 network available at this time. All urgent, after hour requests will be handled the 1<sup>st</sup> business morning upon their return.

SciSpec                      Eric Speaks  
SciSpec                      Sue Cwik



none

[eric@scispec.com](mailto:eric@scispec.com)  
[Susan@scispec.com](mailto:Susan@scispec.com)

If you have any questions, please let me know.

*Melissa Sambiagio*

State of Michigan

Department of Technology, Management and Budget

Procurement – Commodities Division

Constitution Hall, 1-N

525 West Allegan Street

Lansing, Michigan 48933

517-284-7016 Office

855-647-8724 Toll Free Customer Service

517-335-0046 Facsimile

[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

Website: [www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

**From:** Cook, Rebecca (DTMB)

**Sent:** Wednesday, February 10, 2016 5:36 PM

**To:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Hunter, Lymon (DTMB) <[hunterl@michigan.gov](mailto:hunterl@michigan.gov)>; Dufour, Yvon (DTMB) <[DufourY@michigan.gov](mailto:DufourY@michigan.gov)>; Camp, William (DTMB) <[CampW@michigan.gov](mailto:CampW@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Cieciva, Sue (DTMB) <[ciecivas@michigan.gov](mailto:ciecivas@michigan.gov)>

**Subject:** Flint Briefing

All

I'm going to be out on Friday, and Jeff/Sharon have asked for a Flint briefing on Thursday.

You all have worked with one or more vendors involved in Flint response.

Can you please provide the following: 24/7 contact name, phone and email for applicable vendors. Please also describe any pending inquiries, issues or orders – or confirm none currently pending.

Melissa (Sci Spec, VWR, other?)

Lymon (DK Security)

Yvon (Hertz, other equipment rental?)

Will (Linguistica)

Steve (Home Depot, Grainger)

Sue (Have contact info already, thank you. Please just confirm no pending activity for medical supplies)

Rebecca Cook

DTMB Procurement

Commodities Division Director

517-284-7008



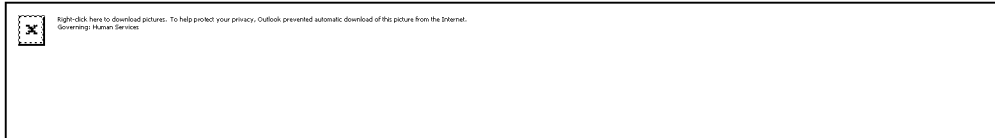
HELP. CONNECT. SOLVE.



---

**From:** GOVERNING: This Week in Politics <newsletters@governing.com>  
**Sent:** Friday, February 12, 2016 9:43 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Top Officials at Risk and Unresolved 2016 Election Maps

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## THIS WEEK IN POLITICS

# Top Officials at Risk and Unresolved 2016 Election Maps

BY ALAN GREENBLATT

### Statewide Officials Find Themselves at Risk

Executive branch jobs are generally more stable than legislative positions. But some didn't seem too secure this week.

**In Michigan**, the drumbeat of complaints about Republican Gov. Rick Snyder just keep getting louder. On Monday, the Board of State Canvassers approved one of many recall petitions, which gives Snyder's critics a green light to collect signatures to put a recall measure on the November ballot. The approved petition has to do with education, but any recall campaign will focus squarely on how Snyder has handled the Flint water crisis.

**In Indiana**, Republican Gov. Mike Pence, who is up for re-election this fall, picked a new running mate this week after his quit. Lt. Gov. Sue Ellspermann is up for a job running a community college system, so Pence turned to Eric Holcomb, a former chair of the state GOP, to shore up his ties with party activists.

"By selecting Holcomb as his running mate, Pence sent a clear message about how endangered his political career is," wrote Matthew Tully, a columnist with the *Indianapolis Star*.

Pence is being challenged by Democrat John Gregg, a former House speaker.

**KEEP READING >>**

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## **MORE POLITICS NEWS & COMMENTARY**

### **What Would Happen If America Made Voting Mandatory?**

Dozens of other countries force their citizens to participate in elections.

### **More Felons Get Voting Rights in Maryland**

The legislature narrowly overturned the governor's veto of a bill to extend voting rights to felons before they complete probation and parole.

### **Kasich Comes in Second in New Hampshire Primary**

Since World War II, either the winner or runner-up in New Hampshire has gone on to take the GOP nomination.

### **Bloomberg Considering 'All the Options' for 2016 Presidential Bid**

A former Democrat who ran for New York mayor as a Republican, Michael Bloomberg has been without a political party since 2007.

### **Struggling to Win Higher Office, Tea Party Turns Attention to Local Races**

Will their new strategy pay off?

### **Despite Mass Arrests of Top Officials, Texas Town Hopes for Better Future**

The mayor, city manager and city councilmembers of Crystal City, Texas, are all facing years in prison.

### **Hillary Clinton in Flint: 'We Need Action Now'**

The former secretary of state and first lady left the campaign trail in New Hampshire to highlight the Flint water crisis yet again.

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---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Friday, February 12, 2016 11:38 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Automatic reply: Assistance for Flint

I will out of the office until February 16, 2016. If your matter is urgent, call the DTMB-Procurement general office number at 517-284-7000. For specific assistance please refer to the following:

Vendor questions/inquiries: Isidra Chavez, 517-284-7048, [ChavezI@michigan.gov](mailto:ChavezI@michigan.gov)

Enterprise Procurement Intranet (SharePoint): Gavin Lacambra, 517-284-6994

Contract Connect website (including Flint emergency purchasing form): Shelby Troub, 517-284-7028

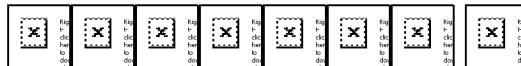
Listserve: Kelly Hamilton, 517-284-7024

Flint emergency purchasing submissions: Geneveive Hayes, 517-284-7014

Thank you,

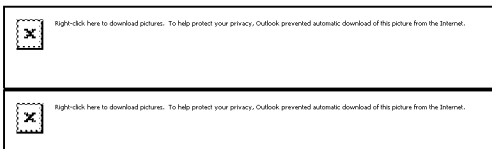
Jenni Riehle

**From:** The Council of State Governments <data@csg.org>  
**Sent:** Monday, February 15, 2016 10:07 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Driverless Cars; State Oaths; President's Budget; Clean Power Plan Halted



**Issue: 49**

**Feb. 15, 2016**



### States Gear Up for Driverless Cars

Change is commonplace and expected in the auto industry. In recent years, however, talk has been not only about body styles but also about whether or not a body is needed at all--a human body, that is. More than a dozen states introduced legislation related to autonomous vehicles in 2015. Already this year has produced much news about autonomous vehicles, and testing projects have become more prevalent across the country.

**READ MORE**

### I Do Solemnly Swear ...

An oath is the bridge that carries newly elected leaders from the grueling campaign trail to the daily grind of a public servant. In January, men and women across the country raised their right hands and promised to support constitutions and do their jobs to the best of their abilities. Here is a look at a variety of state oaths of office and oath-taking traditions through history.

**READ MORE**





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## President Obama Sends His Final Budget to Congress

America has seen its way through the Great Recession and, through sacrifice and hard work, has turned its economy around. That was President Obama's message when he submitted his proposed budget to Congress Feb. 9, requesting \$4.23 trillion in spending authority for the 2017 fiscal year, which starts on Oct. 1.

**READ MORE**



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## Lessons and Trends in Product Stewardship Laws

While Americans' recycling of paper goods, cans and bottles is up in recent years, recycling rates for products such as batteries and electronics are lagging behind. But states are ramping up efforts to change that. That's according to Chaz Miller, director of policy and advocacy for the National Association of Waste and Recycling, who discussed emerging issues in product stewardship laws in the states at a Feb. 2 CSG eCademy webcast, "Managing Solid Waste through Product Stewardship Laws."

**READ MORE**



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## Leaving Home for the White House

With the election season well underway, all eyes are focused on the road to the White House. Last week, on the anniversary of his presidential campaign announcement, President Obama returned to the Illinois State Capitol to remark, in part, on his journey from the Prairie State to Washington, D.C. On this Presidents Day, CSG takes a look at the states where U.S. presidents lived when they were elected to the country's highest office.

**READ MORE**



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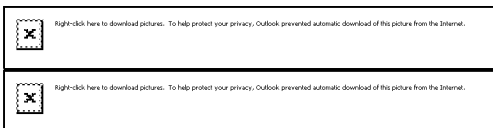


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## Top Federal Affairs Issues in 2016

Congress finished 2015 on an unusually productive streak by passing a variety of legislation important to state governments, including funding the Highway Trust Fund, reforming the Elementary and Secondary Education Act, reauthorizing the Export-Import Bank and funding the federal government through September 2016. In 2016, state leaders will be closely monitoring congressional and executive actions to ensure they do not preempt individual state laws or add any new unfunded expenses.

**READ MORE**



## **SCOTUS Halts Clean Power Plan: What Does this Mean for States?**

On Feb. 9, the U.S. Supreme Court granted a stay that stops implementation of the Environmental Protection Agency's Clean Power Plan until the ongoing legal challenges to the rule are resolved by the courts. The 5-4 decision came in response to a request for stay to the Supreme Court by more than two dozen states, utilities and other industry advocates after the U.S. Court of Appeals for the D.C. Circuit denied previous requests to halt implementation of the rule last month.

**[READ MORE](#)**



## **States to Watch in 2016: Transportation Funding**

Tuesday, Feb. 23, 2 p.m. EST  
FREE CSG eCademy  
**[REGISTER HERE](#)**

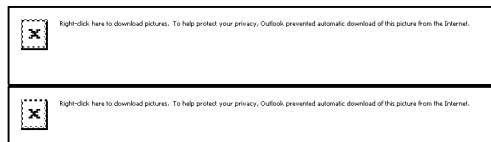
## **Road Usage Charge: An Update from the West**

Tuesday, March 22, 2 p.m. EST  
FREE CSG eCademy  
Presented by CSG West  
**[REGISTER HERE](#)**

## **Clean Power Plan Stay: What Does It Mean for Cities and States?**

Monday, Feb. 22, 1:30 p.m. EST  
SLLC Conference Call  
Dial: (888) 608-3665  
Code: 758-293-4439  
**[MORE INFO HERE](#)**

**[See Full Calendar](#)**



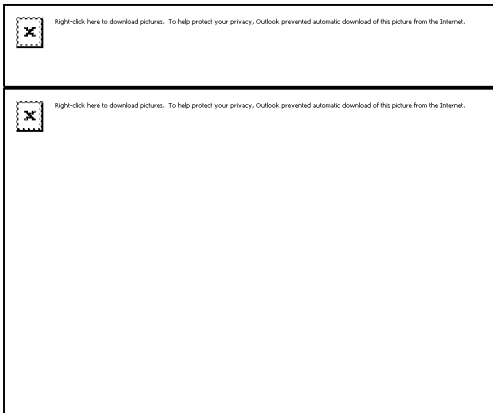
## **Amid Water Crisis, Walmart and Comcast Provide Relief for Flint**

Like many observers, Comcast and Walmart leaders were stunned by the news of the water crisis in Flint, Mich. With significant numbers of employees in Flint, CSG Associate members Walmart and Comcast were quick to respond, providing bottled water to area students and offering water filtration services to community residents.

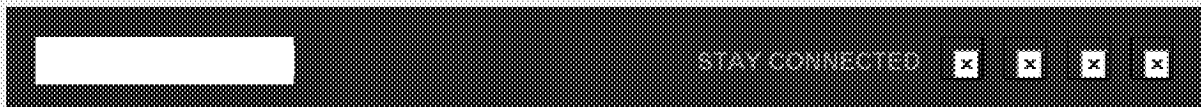
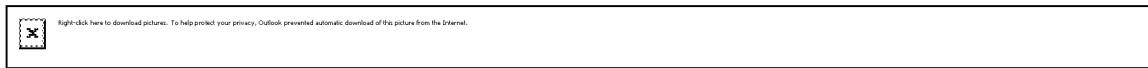
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Founded in 1933, The Council of State Governments is our nation's only organization serving all three branches of state government. CSG is a region-based forum that fosters the exchange of insights and ideas to help state officials shape public policy. This offers unparalleled regional, national and international opportunities to network, develop leaders, collaborate and create problem-solving partnerships.



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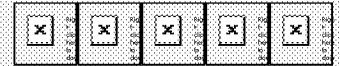
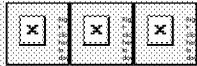
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Sent by [data@csg.org](mailto:data@csg.org) in collaboration with




**From:** Catherine Patin <cpatin@nigp.org>  
**Sent:** Wednesday, February 17, 2016 6:13 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Where does Public Procurement 'live' in your entity?

Check out our enhanced [website](#) on your phone or tablet...



**NIGP: The Institute for Public Procurement**

February 17, 2016

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NIGP (Non-Expendable Procurement) is everywhere. The dot is the best.



## What's New

"Beyond Flint: Are Other City Water Supplies in Danger?"

[Read more...](#)

"How Local Governments Can Use Data Centers to Better Protect Critical Data"

[Read more...](#)

"Job Growth in State Government Remains Sluggish in 2016"

[Read more...](#)

"Government's Troublesome Data-Hoarding Habit"

[Read more...](#)

"Policymakers Need to Start Taking Social Media Seriously"

[Read more...](#)

## -Pro Development

### Online Courses

[Strategic Procurement Planning in the Public Sector](#)

March 8 - May 10

[Contract Administration in the Public Sector](#)

March 21 - May 23

[Read more...](#)

### Webinars - FREE for NIGP Members

[Contract Administration - Beginning with the End in Mind](#)

March 9

[Performance Management - Not Just Measures!](#)

March 23

[Read more...](#)

### Face-to-Face Courses

Upcoming events in your area.

[Read more...](#)

## New Best Practice

### The Place of Public Procurement Within The Entity

The placement of Procurement should be operationally distinct from other departments and divisions.

The 'Place of Procurement' refers to positioning Procurement within the entity to optimize the influence and impact of Procurement on internal and external stakeholders.

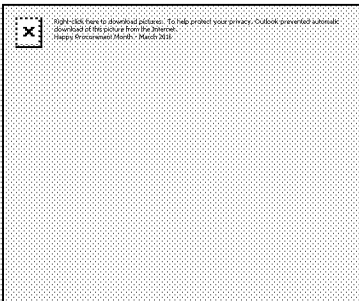
This best practice builds a case for the strategic placement of the Procurement function. This placement maximizes the effectiveness of Procurement within the entity and is critical for the entity to fully benefit from Procurement operations.

[Read more...](#)

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2016 NIGP Online Course Calendar



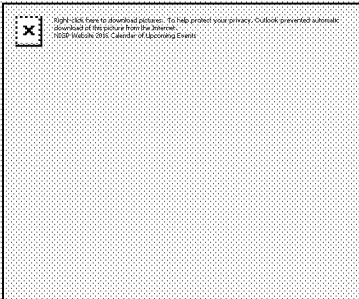




## Are you ready for Procurement Month?

Next month provides the opportunity to educate elected officials, administrators, taxpayers and suppliers on the *awesome* job you perform every single day. March is all about you...it's time to "toot your horn!"

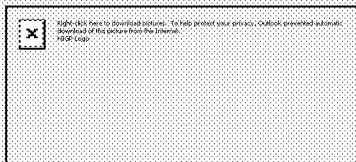
Please forward event photos, proclamations, activity descriptions to [cpatin@nigp.org](mailto:cpatin@nigp.org) for inclusion in Procurement Month 2016.



## Mark your calendar...upcoming procurement events

For your convenience, we've streamlined and enhanced our website. Check out the calendar of upcoming procurement events for the latest educational offerings you don't want to miss.

We'd like to know what you think. Please email our Web Content Manager, Ronni Levine at [rlevine@nigp.org](mailto:rlevine@nigp.org). We look forward to hearing from you.



This message was sent to [brownleej@michigan.gov](mailto:brownleej@michigan.gov) from:

NiGP. The Institute for Public Procurement | [cpatin@nigp.org](mailto:cpatin@nigp.org) | 2411 Dulles Corner Park, Suite 350 | Herndon, VA 20171 United States

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**Medicaid Health Plan Contract  
Service Area Approval  
Summary 10/2009 – 01/2012**

**Contract**

- Most recent Medicaid Health Plan (MHP) contract procurement process occurred in 2009- contract effective date of 10/01/2009 and expiration of 09/30/2012 with option to exercise three one-year contract extensions
- Per the Comprehensive Health Care Program Contract sec. 1.021 C states: *DCH may consider Contractors' requests for service area expansion during the term of the contract. Approval of service area expansion requests will be at the sole discretion of DCH and will be contingent upon the need for additional capacity in the counties proposed in the expansion request.*

**Contract Administration Procedures**

- For the purposes of ALL service area expansion requests, DCH has based capacity on the number of plans needed in the county as identified in Appendix 10 of the 2009 bid (see attached procedure—Attachment B).
- DCH processed 17 service area expansions 10/01/2009 through 01/01/2012 (see attached list – Attachment A)
- Service area expansion procedure components (procedure is attached – Attachment B):
  - Office of Financial and Insurance Services approval of the county
  - Need for an additional health plan in county based on 2009 bid Appendix 10
  - Adequacy of the plan's proposed provider network
  - Financial ability of the health plan to handle additional membership
- Procedure modified in June 2011 to add one additional component
  - Quality scores of the health plan – clinical and operational measures
- Procedure modified in September 2011 to allow DCH to compare multiple requests for the same county at the same time
  - Prior to September 2011, service area expansion requests were processed on first-come basis
  - DCH determined that comparing multiple requests for the same county allows DCH to maximize quality of services offered to the beneficiaries
  - Distributed schedule for deadline of requests on quarterly basis (Attachment C)
  - Requests evaluated by the contract manager and quality analyst
- Under the June 2011 procedure, the documentation format was formalized and made uniform (examples attached – Attachment D)
- After evaluation, MDCH-Managed Care Plan Division made determination and if expansion was approved, sent memo announcing expansion (memos for all expansions since 10/01/2009 attached – Attachment E)

**BlueCaid: Full Wayne County Coverage Approval:**

- BlueCaid's originally approved service area in Wayne County, as a result of the 2009 bid, was for six (6) zip codes contiguous to Washtenaw County, as permitted in section of the contract.
- BlueCaid is the only plan that requested "contiguous county" approval under the FY2009 – FY 2015 contract. (See Attachment F for contract excerpt).
- BlueCaid requested approval for 16,000 additional lives (above the 5,000 for which they already had approval) in all of Wayne County.

- At the time of BlueCaid's request to expand beyond the 6 zip codes in Wayne, DCH considered BlueCaid a Wayne County plan in terms of number of plans needed in Wayne County per Appendix 10 of the 2009 bid. Wayne County is not on list of Service Area Expansion Available Counties (See Attachment G) since eight (8) plans were needed and DCH considered BlueCaid one of the eight plans since the 2009 bid award.
- The BlueCaid request did not result in an expansion of the number of plans within the county; however, DCH applied the service area expansion criteria to assure access, capacity and quality. BlueCaid met or exceed all criteria; therefore, DCH approve BlueCaid's request to provide full county service.

## Attachment A

<b>Co</b>	<b>County/Status</b>	<b>Plan Name</b>	<b>Effective Date</b>	<b>Capacity Approved</b>
30	Hillsdale	Priority Health GP	4/1/2010	2000
38	Jackson	Priority Health GP	4/1/2010	10000
11	Berrien	Molina Healthcare of MI	8/1/2010	1000
33	Ingham	Molina Healthcare of MI	12/1/2010	1000
15	Charlevoix	McLaren Health Plan	8/1/2011	1000
16	Cheboygan	McLaren Health Plan	8/1/2011	1000
39	Kalamazoo	OmniCare Health Plan	8/1/2011	10000
75	St. Joseph	OmniCare Health Plan	8/1/2011	1000
15	Charlevoix	Health Plan of MI	9/1/2011	750
24	Emmet	Health Plan of MI	9/1/2011	1250
14	Cass	OmniCare Health Plan	10/1/2011	1500
24	Emmet	McLaren Health Plan	1/1/2012	1500
37	Isabella	PHP Family Care	1/1/2012	200
39	Kalamazoo	McLaren Health Plan	1/1/2012	2000
53	Mason	Priority Health GP	1/1/2012	1000
62	Newaygo	Priority Health GP	1/1/2012	2000
80	Van Buren	Priority Health GP	1/1/2012	3000

## Attachment B

### Managed Care Plan Division Procedures

#### PLAN MANAGEMENT SECTION

SERVICE AREA EXPANSIONS	Number: <b>PMS 002</b> Date: 9/20/2011 Page: 1 of 6
<b>PURPOSE:</b> For review of Service Area Expansion requests	

#### Service Area Expansion Procedure INTERNAL PROCEDURE Revised September 2011

- MHP/CHP requests a service area expansion by contacting DCH. This would involve adding one or more counties to an existing health plan. Any requests received will be reviewed as a group by the committee based on the **Calendar for Service Area Expansion Review** calendar listed below.
- MHP/CHP provides a copy of the OFIR approval of that service area. MHP/CHP requests a specific capacity for the service area and a planned expansion date. MHP/CHP provides a summary and specific list of providers and services that can be offered in the new area. The MHP/CHP must include GeoAccess maps to demonstrate the adequacy of a provider network.
- Contract Manager (CM) and the Quality Analyst (QA) review the request to determine:
  - the adequacy of the proposed provider network,
  - the financial ability of the health plan to handle additional membership,
  - the need for an additional health plan in the area (Appendix 10 JEC Evaluation Summary, Scoring Summary Total Points)
  - the quality scores of the health plan – clinical and operational measures:
    - Clinical Measures
      - Childhood Immunizations
      - Prenatal Care
      - Postpartum Care
      - Well Child Visits, 15 months – HEDIS
      - Well Child Visits, 3 to 6 years – HEDIS
      - Blood Lead Testing for two year olds
    - Operational Measures

September 20, 2011

CHP Division\Procedures\Office Procedures\Plan Management\PMS 002

- Complaints
- Encounter Data Reporting – Timely, Complete
- Provider File Reporting – Timely, Complete
- Claims Processing – Timely & Accurate
- Pharmacy Data Reporting – Timely, Complete
- CM and QA review and analyze the following:
  - Number of PCPs, pediatricians, OB/GYNs, specialists and hospitals, in the county, and contiguous counties, if necessary. Obtain a 4275 file from Michigan Enrolls.
  - The specialists to be reviewed may include, but are not limited to:
    - OB-GYN
    - Cardiologists
    - Dermatologists
    - Ophthalmologists
    - Orthopedic surgeons
    - Gastroenterologists
    - Neurologists
    - Pediatric sub-specialists (in anticipation of CSHCS being enrolled in managed care).
  - If there is a shortage of providers, the plan must demonstrate how they intend to provide access to those services—transportation to contiguous counties, etc.
  - Determine if the RBC is high enough to cover the additional capacity requested.
  - Other information available to assist in determining whether the request should be approved.

Calendar for Service Area Expansion Review:

Service Area Expansion Request Submission Deadline	Enrollment Effective Date (Provided the expansion request is <b>approved</b> )
November 1, 2011	January 1, 2012
February 1, 2012	April 1, 2012
May 1, 2012	July 1, 2012
August 1, 2012	October 1, 2012
November 1, 2012	January 1, 2013

- The CM and QA give all pertinent information to the Expansion Committee which consists of the PMS Section Manager, QIPD Section Manager, a QA and a CM (Attachment A).
- The Expansion Committee reviews and makes recommendations to the Division Director (Attachment B).
- The Division Director makes a final decision and notifies the committee who in turn notifies the CM and QA.
- If the request is to be approved:
  - CM creates an email to the PMS Section Manager with the details of the request, recommending approval (sample format, Attachment C).
  - CM notifies the health plan by e-mail and cc's the PMS Section Manager.

## Attachment B

- CM updates Service Area on CHAMPS (Attachment F- remember for MHP's to update both voluntary and auto ID). Notify Sam that the update is complete.
  - CM notifies QIPD secretary to update and distribute the Service Area listing.
  - PMS Section Manager sends an email to a "Service Area" address list, attaching the CM's approval memo, and noting when/if the plan will begin receiving auto assignments.
- If the request is denied the CM notifies the plan by email and cc's the PMS Section Manager.

**Attachment A**  
**Sample Email to Expansion Committee**

xx has requested service area expansion into xx and xx Counties. They received OFIR approval on xx, and are approved for 1,000 enrollees in xx County and 1,500 enrollees in xx County.

Review of the MI Enrolls provider file for xx indicates:

- 26 PCPs, 11 Pediatricians, 4 OBs and 1 hospital in xx County
- 23 PCPs, 10 Pediatricians, 0 OBs and 2 hospitals in xx County

xx indicates that members with OB needs in xx County will be provided information and allowed open access to OB providers in contiguous counties, especially in xx County, where xx has xx contracted OB providers.

Based on this information we would recommend approval of the plan's request to expand into xx and xx Counties.



**Attachment B**  
**Sample Email to Division Director**

xx has requested service area expansion into xx and xx Counties. They received OFIR approval on xx, and are approved for 1,000 enrollees in xx County and 1,500 enrollees in xx County.

Review of the MI Enrolls provider file for xx indicates:

- 26 PCPs, 11 Pediatricians, 4 OBs and 1 hospital in xx County
- 23 PCPs, 10 Pediatricians, 0 OBs and 2 hospitals in xx County

xx indicates that members with OB needs in xx County will be provided information and allowed open access to OB providers in contiguous counties, especially in xx County, where xx has xx contracted OB providers.

Based on this information we would recommend approval of the plan's request to expand into xx and xx Counties.

**Attachment C**  
**Sample Memo to Section Manager**

**DEPARTMENT OF COMMUNITY HEALTH**  
**MANAGED CARE PLAN DIVISION**

**MEMORANDUM**

**Date:** February 24, 2010

**To:** Kim Hamilton, Section Manager  
Plan Management Section

**From:** Julie Denny, Contract Manager  
Plan Management Section

**Subject:** Priority Health Government Programs Service Area Expansion

I wish to inform you that Priority Health Government Programs (PRI) has received approval to expand its Medicaid service area into Hillsdale and Jackson Counties for enrollments effective April 1, 2010. PRI's 24-hour access number is 888-975-8102.

PRI Voluntary ID # [REDACTED]  
PRI MCEP ID # [REDACTED]

**Service Area:**

Region 2	Hillsdale County (30)	capacity 2,000
Region 2	Jackson County (38)	capacity 10,000

If you have any questions please call me at 373-4244.

**Attachment D**  
**Risk Based Capital (RBC)**

Use the Annual Consolidated Report due March 1<sup>st</sup> each year.  
Use the Medicaid Managed Care Report for January of the same year as the annual report.

$(TAC \div ACL) \times 100 = RBC$  (Round to one decimal – this is a percent)  
If RBC is over 200% you can calculate additional member data. If 200% or lower notify the section manager.

$TAC \div Enrollment = \text{Cost per Member}$

$ACL \div \text{Cost per Member} = \text{Number of Additional Members the plan can accommodate and still maintain a RBC above 200\%}$

TAC = Total Adjusted Capital  
ACL = Authorized Control Level

**Attachment E**  
**Instructions for completing the Expansion Tool**

**MHP Service Area Expansion**  
**2011 Instructions**

1. When the request comes in, the team gets notified. A current template for the worksheet is unlocked and placed in the file, labeled with the MHP's acronym under the following path:

G:\CHP Division\ExpansionRequest-MHP\2011 Requests

**Step 1**

2. QAs label each page with the acronym, enter the MHP name, address and phone number in the first box on page 1/step 1.
3. QAs complete "In Medicaid Since:" box. This can be obtained from the Annual Report (financials) submission; or, it could be in the Compliance Review Introduction. If you find discrepancies, make notes here.
4. QAs complete the "Accreditation" box with the institution and ending year of the MHP's accredited period. Use the most recent Excel spreadsheet from the file path:

G:\CHP Division\accreditation

5. CMs complete the Membership Volume (Total Enrollees for the MHP) from the MI Medicaid Managed Care Report (MR02a sent by Carol Armstrong) and notes the month of the report used. Ex. 76,550 (May 2011)
6. CMs complete the Counties of Current Operation which can be taken from the Carol Armstrong Report used in the above step.
7. CMs complete the Step 1 box based on the MHP information supplied in the request. The last question: Need for More Plans? is based on how many plans are currently in the county (can be checked on the Cap Report) and the MAX number of plans needed per the New Appendix 10.

## **Step 2**

Each county being requested is evaluated separately- if there was need for more plans and OFIR service area approval has been granted. CMs fill out a separate Step 2 box for each county being considered.

1. CMs complete the capacity requested for the specific county, if the MHP wants providers from contiguous counties considered (yes/no), the county being requested and if the county is currently a preferred option county (yes/no).
2. CMs complete the numbers of specific types of providers, keeping contiguous county information separate from the numbers of providers located in the county. These numbers come from a request made by the CM to Michigan Enrolls for the provider information for the county requested.
3. CMs complete the RBC information. Take note of the total enrollment when the RBC was figured versus the most recent total enrollment per the Carol Armstrong report.
4. CMs calculate the PCP ratio. Capacity Requested/# PCPs accepting new patients=PCP ratio. (ex. Cap 1,000/2 PCPs accepting new patients = 1:500) (Note the ratio must be a minimum of 1:750 or the MHP may have to reduce the requested capacity or increase their # of PCPs accepting new patients.)

## **Step 3**

1. QAs enter PMR data for the "most recent published month" and separated into 2 sections: Clinical and Operational.
2. The Standards have been entered into the template and will roll into each Request's file, with a new template updated and filed for each fiscal/contract year.
3. Top section is the Clinical section. Points awarded are 5 to meet or exceed the standard, 0 for unmet.
4. Lower section is the Operational section. QAs will want to make note of how many months or quarters are met, (similar to how the Compliance Review 4.10 DCH Response is written, "3/4 or 10/12 met")

5. QAs to subtotal each section, then Total Points Awarded gets carried over to Step 5.

#### **Step 4**

1. QAs enter HEDIS scores for the "most recent HEDIS year's data" taken from the Statewide Aggregate Report, Appendix C Trend Tables, (each MHP has its own page of data).
2. The Michigan Weighted Average data has been entered for the year, and will carry over into each MHP's Request worksheet.
3. QAs to enter the past two year's and the current year's data in appropriate columned boxes.
4. QAs to use arrows to trend, comparing movement against the Weighted Average score.
5. QAs DO NOT AWARD POINTS ON STEP 4. Committee will award points, if this step is deemed necessary.

#### **Step 5**

1. Will be completed by the SAE Committee.

**Attachment F**  
**CHAMPS – PROVIDER UPDATES**

After SSO and choosing CHAMPS

1. Go to “Contract/MC” tab
2. Choose “Contracts Management”
3. Choose “Contract Administration”
4. Choose “Managed Care Contracts”
5. Filter or Sort List to find Contract (Plan) you wish to Modify. REMEMBER: For MHP must modify both the Auto and the Voluntary Contracts
6. Put check mark in front of Contract to be modified and click modify
7. Put a check mark in front of Step # 3: Contract Service Area and click Modify
8. Put a check mark in front of Region in Service Areas to be modified and click Modify. REMEMBER: Only modify the record with “Approved” status and open-end date (12/31/2999)
9. To add or delete a county you must first end-date the existing service area configuration. So change the end-date from 12/31/2999 to the last day you want this configuration to be active. For example, if the plan is expanding into Kent for 2/1/2011 then end-date the current service area record 01/31/2011.
10. Click Go (generates zip codes)
11. Click OK – takes you back one page
12. Click Finish – takes you back to Wizard Page
13. Click Close
14. Put a check mark in front of Contract record with Contract Status as “completed” and click Submit
15. Ask Contractor Approver to Approve
16. Repeat Steps 1 through 7
17. Change the begin date to the date that the new county configuration begins and change end-date to 12/31/2999.
  - a. Adding counties: Move the county or counties being added from “Available Counties” to “Selected Counties” using the “>>” arrow;
  - b. Removing counties: Move the county or counties being removed from “Selected Counties” to “Available Counties” using the “<<” arrow. Then click
  - c. Continuing with our example, we will change the begin date to 02/01/2011, change the end-date to 12/31/2011, and move Kent from available to Selected.
18. Click Go (generates zip codes)
19. Click OK – takes you back one page
20. Click Finish – takes you back to Wizard Page
21. Click Close
22. Put a check mark in front of Contract record with Contract Status as “completed” and click Submit
23. Ask Contractor Approver to Approve

Follow steps 1 – 7 again clicking “view” instead of “modify” to verify change appears correctly in CHAMPS

Attachment C

**Service Area Expansion**

**Request Submission**

**Deadline**

**Enrollment Effective Date**

November 1, 2011

January 1, 2012

February 1, 2012

April 1, 2012

May 1, 2012

July 1, 2012

August 1, 2012

October 1, 2012

November 1, 2012

January 1, 2013



# Attachment D

**HPM**

Health Plan of MI, inc.  
777 Woodward Ave, Ste 600  
Detroit 48226 888-  
437-0606

QA: In Medicaid Since: 1995

QA: Accreditation: URAC Full accreditation thru March of 2014

CM: Membership Volume: 282,753

CM: Counties of Current Operation: Alcona, Allegan, Alpena, Antrim, Arenac, Barry, Bay, Benzie, Berrien, Branch, Calhoun, Cass, Clare, Clinton, Crawford, Eaton, Genesee, Gladwin, Grand Traverse, Gratiot, Hillsdale, Huron, Ingham, Ionia, Iosco, Isabella, Jackson, Kalamazoo, Kalkaska, Kent, Lake, Lapeer, Lenawee, Livingston, Macomb, Manistee, Mason, Mecosta, Midland, Missaukee, Monroe, Montcalm, Montmorency, Muskegon, Newaygo, Oakland, Oceana, Ogemaw, Osceola, Oscoda, Otsego, Ottawa, Presque Isle, Roscommon, Saginaw, Sanilac, St. Clair, St. Joseph, Shiawassee, Tuscola, Van Buren, Washtenaw, Wayne, Wexford

**Step 1: CM completes:**  
Date Request Received: 6/21/2011  
Count(ies) Requested: Cheboygon, Charlevoix, Emmet  
Effective Date: Non given  
Requested Capacity: 3000  
OFIR Approval Rec'd: yes all three counties  
Need for More Plans: yes all three counties

Step 2: CM completes:		Cap Req'd: 750	Contig?	Preferred Opt?
County Name:	Charlevoix		yes	Yes
# of PCPs:		5		
# of Peds:		0		
# of OB/Gyn:		0		
Cardiologist:		0		
Dermatologist:		0		
Ophthalmologist:		5		
Orthopods:		1		
Gastroenterologist:		0		
Neurologist:		0		
Ped Sub-Specialist:		0		
RBC %		269		
What was total enrollment for RBC?		279585		
Additional Members MHP Can Accommodate?		104094		
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)		(1:150)		

Step 2: CM completes:		Cap Req'd: 1000	Contig?	Preferred Opt?
County Name:	Cheboygan		yes	yes
# of PCPs:		2		
# of Peds:		0		
# of OB/Gyn:		1		
Cardiologist:		0		
Dermatologist:		0		
Ophthalmologist:		0		
Orthopods:		0		
Gastroenterologist:		0		
Neurologist:		1		
Ped Sub-Specialist:		0		

RBC %	269
What was total enrollment for RBC?	272585
Additional Members	
MHP Can Accommodate?	104094
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	(1:500)

<b>Step 2: CM completes:</b>	<i>Cap Req'd: 1250</i>	<i>Contig?</i>	<i>Preferred Opt?</i>
County Name:	Emmet	yes	yes
# of PCPs:	4		
# of Peds:	1		
# of OB/Gyn:	6		
Cardiologist:	0		
Dermatologist:	0		
Ophthalmologist:	2		
Orthopods:	0		
Gastroenterologist:	0		
Neurologist:	1		
Ped Sub-Specialist:	0		
RBC %	269		
What was total enrollment for RBC?	272585		
Additional Members			
MHP Can Accommodate?	104094		
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	(1:313)		

<b>Step 2: CM completes:</b>	<i>Cap Req'd:</i>	<i>Contig?</i>	<i>Preferred Opt?</i>
County Name:			
# of PCPs:	<i>taken from 4275 MIEnrolls</i>		
# of Peds:	<i>taken from 4275 MIEnrolls</i>		
# of OB/Gyn:	<i>taken from 4275 MIEnrolls</i>		
Cardiologist:	<i>taken from 4275 MIEnrolls</i>		
Dermatologist:	<i>taken from 4275 MIEnrolls</i>		
Ophthalmologist:	<i>taken from 4275 MIEnrolls</i>		
Orthopods:	<i>taken from 4275 MIEnrolls</i>		
Gastroenterologist:	<i>taken from 4275 MIEnrolls</i>		
Neurologist:	<i>taken from 4275 MIEnrolls</i>		
Ped Sub-Specialist:	<i>taken from 4275 MIEnrolls</i>		
RBC %	<i>taken from Capacity Folder, RBC &amp; Capacity Summary</i>		
What was total enrollment for RBC?	<i>use RBC &amp; Capacity Summary Report</i>		
Additional Members			
MHP Can Accommodate?	<i>use RBC &amp; Capacity Summary Report</i>		
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	<i>calculate from 4275 and req'd capacity</i>		

Step 2: CM completes:	Cap Req'd:	Contig?	Preferred Opt?
County Name:			
# of PCPs:	<u>taken from 4275 MIEnrolls</u>		
# of Peds:	<u>taken from 4275 MIEnrolls</u>		
# of OB/Gyn:	<u>taken from 4275 MIEnrolls</u>		
Cardiologist:	<u>taken from 4275 MIEnrolls</u>		
Dermatologist:	<u>taken from 4275 MIEnrolls</u>		
Ophthalmologist:	<u>taken from 4275 MIEnrolls</u>		
Orthopods:	<u>taken from 4275 MIEnrolls</u>		
Gastroenterologist:	<u>taken from 4275 MIEnrolls</u>		
Neurologist:	<u>taken from 4275 MIEnrolls</u>		
Ped Sub-Specialist:	<u>taken from 4275 MIEnrolls</u>		
RBC %	<u>taken from Capacity Folder, RBC &amp; Capacity Summary</u>		
What was total enrollment for RBC?	<u>use RBC &amp; Capacity Summary Report</u>		
Additional Members			
MHP Can			
Accommodate?	<u>use RBC &amp; Capacity Summary Report</u>		
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	<u>calculate from 4275 and req'd capacity</u>		

### Health Plan of MI - May 2011 PMR Data

**Step 3: QA review analysis:**

<u>Measure</u>	<u>Current Month Rate</u>	<u>2011 Standard</u>	<u>Points Awarded</u>
Childhood Immunizations	<u>80%</u>	84%	<div style="border: 1px solid black; text-align: center; width: 50px; height: 20px;">0</div>
Prenatal Care	<u>90%</u>	87%	<div style="border: 1px solid black; text-align: center; width: 50px; height: 20px;">5</div>
Postpartum Care	<u>76%</u>	67%	<div style="border: 1px solid black; text-align: center; width: 50px; height: 20px;">5</div>
Well Child Visits, 15 months - HEDIS	<u>69%</u>	65%	<div style="border: 1px solid black; text-align: center; width: 50px; height: 20px;">5</div>
Well Child Visits, 3 to 6 years - HEDIS	<u>79%</u>	71%	<div style="border: 1px solid black; text-align: center; width: 50px; height: 20px;">5</div>
Blood Lead Testing for Two year olds	<u>80%</u>	80%	<div style="border: 1px solid black; text-align: center; width: 50px; height: 20px;">5</div>
<b>Subtotal</b>			<div style="border-top: 1px solid black; border-bottom: 3px double black; text-align: center; width: 50px; height: 20px;">25</div>
Complaints	<u>met 4/4</u>	<.250/100mm	<div style="border: 1px solid black; text-align: center; width: 50px; height: 20px;">5</div>
Encounter Data Reporting - Timely, Complete	<u>T,C 12/12</u>	Timely, Complete	<div style="border: 1px solid black; text-align: center; width: 50px; height: 20px;">5</div>
Provider File Reporting - Timely, Complete	<u>T,A 11/12</u>	Timely, Complete	<div style="border: 1px solid black; text-align: center; width: 50px; height: 20px;">0</div>
Claims Processing - Timely & Accurate more than 95%, less then 1.75%	<u>T,A 12/12</u>	Timely, Complete	<div style="border: 1px solid black; text-align: center; width: 50px; height: 20px;">5</div>
Pharmacy Data Reporting - Timely, Complete	<u>T,C 11/12</u>	Timely, Accurate	<div style="border: 1px solid black; text-align: center; width: 50px; height: 20px;">0</div>
<b>Subtotal</b>			<div style="border-top: 1px solid black; border-bottom: 3px double black; text-align: center; width: 50px; height: 20px;">15</div>
<b>Total Points Awarded</b>			<div style="border-top: 1px solid black; border-bottom: 3px double black; text-align: center; width: 50px; height: 20px;">40</div>

**Bolded rates = Meets or Exceeds Standard**

*Rates obtained from the most recent MHP Performance Monitoring Report*

*Each measure is worth 5 points. Each measure will be awarded 5 points or 0 points.*

## Health Plan of MI - Key Measures

### Step 4: QA input rates & trending; Committee input points

<u>Key Measure</u>	<u>2008 Rate</u>	<u>2009 Rate</u>	<u>2010 Rate</u>	<u>2010 MI Weighted Avg</u>	<u>Trending</u>	<u>Points Awarded</u>
Childhood Immunizations Combo 2	88.7%	88.7%	80.1%	78.7%	↓	
Childhood Immunizations Combo 3	82.4%	82.4%	75.2%	74.0%	↓	
Lead Screening in Children	77.5%	81.9%	78.2%	76.5%	↔	
Well-Child Visits, 15 months - 0 visits	1.20%	1.1%	0.9%	0.70%	↑	
Well-Child Visits, 15 months - 6 or more visits	72.0%	72.6%	69.0%	69.5%	↓	
Well-Child Visits, 3-6 years old	71.5%	78.0%	79.1%	75.9%	↑	
Breast Cancer Screening in Women	62.1%	63.0%	62.3%	55.1%	↔	
Cervical Cancer Screening in Women	70.9%	81.3%	80.7%	72.7%	↔	
Timeliness of Prenatal Care	90.0%	89.6%	89.6%R	88.9%	↔	
Timeliness of Postpartum Care	71.4%	75.5%	75.5%R	71.4%	↑	
Advising Smokers & Tobacco Users to Quit*	NA	NA	76.3%	76.9%	↑	
Discussing Tobacco Cessation Strategies*	NA	NA	40.6%	40.4%	↑	
<b>Total Points Awarded</b>						

\*New measures in 2010, no history available.

<u>Point System</u>	
Not Met	0 pts
Met	5 pts
Exceeded	1 additional pt, for each point over the standard

Rates obtained from the current HEDIS Aggregate Report, Appendix C  
(available on division drive, HEDIS folder)

Trending Arrows (use keypad on keyboard):	<u>Keypad #</u>	<u>Trend Symbol</u>
	6	↓
	5	↑
	1	↔

### Health Plan of Michigan - Total Awarded Quality Points

	<u>Awarded Points</u>	<u>Maximum Possible Points</u>	<u>Bonus Points</u>
PMR DATA:	<div>40</div>	<div>55</div>	<div></div>
Key Measures:	<div></div>	<div>60</div>	<div></div>
Total	<div></div>	<div>115</div>	<div></div>

**Step 5 Finalization:** *To be completed by CM & QA together, after discussion*

Approval/Denial Recommendation Approval for Charlevoix and Emmet. Deny Cheboygan as  
Date: 9/1/2011 there is no need for additional health plans in this county.  
Rationalization:

We are recommending approval in Charlevoix for 750 members and Emmet for 1,250 members. We are recommending denial of expansion to Cheboygan as there is no need for an additional health plan in this county.

**MCL**

MCL  
G-3245 Beecher Rd, Ste 200  
Flint 810.733.9700

QA: In Medicaid Since:

1998

QA: Accreditation:

NCQA til 8/26/2012

CM: Membership  
Volume:

76550 (May 2011)

CM: Counties of Current  
Operation:

*Arenac, Bay, Clare, clinton, Eaton, Genesee, Gladwin, Gratiot, Huron,  
Ingham, Ionia, Iosco, Isabella, Lapeer, Macomb, Midland, Montcalm,  
Oakland, Ogemaw, Oscoda, Roscommon, Saginaw, St. Clair, Sanilac,  
Shiawassee, Tuscola*

**Step 1: CM completes:**

Date Request Received: 4/25/2011

Count(ies) Requested: *Charlevoix, Cheboygan*

both are Pref.Opt.counties

Effective Date: 7/1/2011

Requested Capacity: 2,000 total

OFIR Approval Rec'd: Y

Need for More Plans: Y

**Step 2: CM completes:****Cap Req'd: 1,000**

County Name:

Charlevoix

# of PCPs: 8

# of Peds: 0

# of OB/Gyn: 3

Cardiologist: 0

Dermatologist: 0

Ophthalmologist: 0

Orthopods: 0

Gastroenterologist: 0

Neurologist: 0

Ped Sub-Specialist: 0

RBC %

871%

What was total  
enrollment for RBC?

70,635

Additional Members

HP can

accommodate? 9,053

Evaluate: PCPs accepting new patients ratio:requested capacity (1:750)

(1:125)

**Step 2: CM completes:****Cap Req'd: 1,000**

County Name:

Cheboygan

# of PCPs: 9

# of Peds: 1

# of OB/Gyn: 1

Cardiologist: 0



Dermatologist:	<u>0</u>
Ophthalmologist:	<u>0</u>
Orthopods:	<u>0</u>
Gastroenterologist:	<u>0</u>
Neurologist:	<u>0</u>
Ped Sub-Specialist:	<u>0</u>
RBC %	<u>871%</u>
What was total enrollment for RBC?	<u>70,635</u>
Additional Members HP can accommodate?	<u>9,053</u>
Evaluate: PCPs accepting new patients ratio:requested capacity (1:750)	<u>(1:111)</u>

<b>Step 2: CM completes:</b>	<b>Cap Req'd:</b>	<b>Contig?</b>
County Name:		
# of PCPs:	<u>taken from 4275 MIEnrolls</u>	
# of Peds:	<u>taken from 4275 MIEnrolls</u>	
# of OB/Gyn:	<u>taken from 4275 MIEnrolls</u>	
Cardiologist:	<u>taken from 4275 MIEnrolls</u>	
Dermatologist:	<u>taken from 4275 MIEnrolls</u>	
Ophthalmologist:	<u>taken from 4275 MIEnrolls</u>	
Orthopods:	<u>taken from 4275 MIEnrolls</u>	
Gastroenterologist:	<u>taken from 4275 MIEnrolls</u>	
Neurologist:	<u>taken from 4275 MIEnrolls</u>	
Ped Sub-Specialist:	<u>taken from 4275 MIEnrolls</u>	
RBC %	<u>taken from Capacity Folder, RBC &amp; Capacity Summary</u>	
What was total enrollment for RBC?	<u>use RBC &amp; Capacity Summary Report</u>	
Additional Members MHP Can		
Accommodate?	<u>use RBC &amp; Capacity Summary Report</u>	
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	<u>calculate from 4275 and req'd capacity</u>	

<b>Step 2: CM completes:</b>	<b>Cap Req'd:</b>	<b>Contig?</b>
County Name:		
# of PCPs:	<u>taken from 4275 MIEnrolls</u>	
# of Peds:	<u>taken from 4275 MIEnrolls</u>	
# of OB/Gyn:	<u>taken from 4275 MIEnrolls</u>	
Cardiologist:	<u>taken from 4275 MIEnrolls</u>	
Dermatologist:	<u>taken from 4275 MIEnrolls</u>	
Ophthalmologist:	<u>taken from 4275 MIEnrolls</u>	
Orthopods:	<u>taken from 4275 MIEnrolls</u>	
Gastroenterologist:	<u>taken from 4275 MIEnrolls</u>	
Neurologist:	<u>taken from 4275 MIEnrolls</u>	
Ped Sub-Specialist:	<u>taken from 4275 MIEnrolls</u>	
RBC %	<u>taken from Capacity Folder, RBC &amp; Capacity Summary</u>	

What was total enrollment for RBC?	<u>use RBC &amp; Capacity Summary Report</u>
Additional Members	
MHP Can	
Accommodate?	<u>use RBC &amp; Capacity Summary Report</u>
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	<u>calculate from 4275 and req'd capacity</u>

<b>Step 2: CM completes:</b>		<b>Cap Req'd:</b>	<b>Contig?</b>
County Name:			
# of PCPs:		<u>taken from 4275 MIEnrolls</u>	
# of Peds:		<u>taken from 4275 MIEnrolls</u>	
# of OB/Gyn:		<u>taken from 4275 MIEnrolls</u>	
Cardiologist:		<u>taken from 4275 MIEnrolls</u>	
Dermatologist:		<u>taken from 4275 MIEnrolls</u>	
Ophthalmologist:		<u>taken from 4275 MIEnrolls</u>	
Orthopods:		<u>taken from 4275 MIEnrolls</u>	
Gastroenterologist:		<u>taken from 4275 MIEnrolls</u>	
Neurologist:		<u>taken from 4275 MIEnrolls</u>	
Ped Sub-Specialist:		<u>taken from 4275 MIEnrolls</u>	
RBC %		<u>taken from Capacity Folder,</u> <u>RBC &amp; Capacity Summary</u>	
What was total enrollment for RBC?		<u>use RBC &amp; Capacity Summary Report</u>	
Additional Members			
MHP Can			
Accommodate?		<u>use RBC &amp; Capacity Summary Report</u>	
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)		<u>calculate from 4275 and req'd capacity</u>	

### MCL - April 2011 PMR Data

#### Step 3: QA review analysis:

<u>Measure</u>	<u>Current Month Rate</u>	<u>2011 Standard</u>	<u>Points Awarded</u>
Childhood Immunizations	<u>83%</u>	84%	<div>0</div>
Prenatal Care	<u>97%</u>	87%	<div>5</div>
Postpartum Care	<u>85%</u>	67%	<div>5</div>
Well Child Visits, 15 months - HEDIS	<u>67%</u>	65%	<div>5</div>
Well Child Visits, 3 to 6 years - HEDIS	<u>67%</u>	71%	<div>0</div>
Blood Lead Testing for Two year olds	<u>75%</u>	80%	<div>0</div>
<b>Subtotal</b>			<u>15</u>
Complaints	<u>met 0.098</u>	<.250/100mm	<div>5</div>
Encounter Data Reporting - Timely, Complete	<u>met 12/12</u>	Timely, Complete	<div>5</div>
Provider File Reporting - Timely, Complete	<u>met 12/12</u>	Timely, Complete	<div>5</div>
Claims Processing - Timely & Accurate more than 95%, less then 1.75%	<u>met 12/12</u>	Timely, Complete	<div>5</div>
Pharmacy Data Reporting - Timely, Complete	<u>met 9/12</u>	Timely, Accurate	<div>0</div>
<b>Subtotal</b>			<u>20</u>
<b>Total Points Awarded</b>			<u><b>35</b></u>

**Bolded rates = Meets or Exceeds Standard**

*Rates obtained from the most recent MHP Performance Monitoring Report*

*Each measure is worth 5 points. Each measure will be awarded 5 points or 0 points.*

## MCL - Key Measures

### Step 4: QA input rates & trending; Committee input points

<u>Key Measure</u>	<u>2008 Rate</u>	<u>2009 Rate</u>	<u>2010 Rate</u>	<u>2010 MI Weighted Avg</u>	<u>Trending</u>	<u>Points Awarded</u>
Childhood Immunizations Combo 2	84.7%	83.5%	83.2%	78.7%	↔	
Childhood Immunizations Combo 3	70.8%	77.4%	83.2%	74.0%	↑	
Lead Screening in Children	65.0%	77.6%	82.7%	76.5%	↑	
Well-Child Visits, 15 months - 0 visits	0.7%	0.5%	0.70%	0.70%	↔	
Well-Child Visits, 15 months - 6 or more visits	58.4%	62.3%	67.4%	69.5%	↑	
Well-Child Visits, 3-6 years old	67.9%	77.4%	67.2%	75.9%	↔	
Breast Cancer Screening in Women	50.9%	50.7%	52.5%	55.1%	↔	
Cervical Cancer Screening in Women	69.3%	70.3%	71.3%	72.7%	↑	
Timeliness of Prenatal Care	92.9%	92.2%	96.8%	88.9%	↑	
Timeliness of Postpartum Care	80.8%	83.0%	85.2%	71.4%	↑	
Advising Smokers & Tobacco Users to Quit*	NA	NA	76.7%	76.9%	-0.2	
Discussing Tobacco Cessation Strategies*	NA	NA	34.0%	40.4%	-6.4	
<b>Total Points Awarded</b>						

\*New measures in 2010, no history available.

<u>Point System</u>	
Not Met	0 pts
Met	5 pts
	1 additional pt, for each point over the standard
Exceeded	

Rates obtained from the current HEDIS Aggregate Report, Appendix C  
(available on division drive, HEDIS folder)

### MCL - Total Awarded Quality Points

	<b>Awarded Points</b>	<b>Minimum Possible Points</b>	<b>Bonus Points</b>
PMR DATA:	35	55	
Key Measures:		60	
<b>Total</b>		115	

**Step 5 Finalization:** *To be completed by CM & QA together, after discussion*

Approval/Denial Recommendation: Approval

Date: 6/10/2011

Rationalization:

We are recommending approval for 1,000 enrollees in Charlevoix County and 1,000 enrollees in Cheboygan County for enrollments effective August 2011.

Review of the MI Enrolls Provider File for MCL indicates:

\*8 PCP's, 0 Pediatricians, and 3 OB's in Charlevoix County

\*9 PCP's, 1 Pediatrician, and 1 OB in Cheboygan County

It is also important to note that Charlevoix and Cheboygan are preferred option counties. They are contracted with one hospital in Cheboygan and one in Charlevoix.

**OCH**

Omnicare Healthplan  
1333 Gratiot, Ste 400  
Detroit 313.465.1517

QA: In Medicaid Since:

2004

QA: Accreditation:

NCQA til 9/22/2012

CM: Membership  
Volume:

48619, (from May 2011)

CM: Counties of Current  
Operation:

Oakland, Wayne

**Step 1: CM completes:**

Date Request Received: 4/26/11  
Barry, Cass, Kalamazoo, St.  
Count(ies) Requested: Joseph  
Effective Date: July 2011/ASAP  
Requested Capacity: 20,000 total  
OFIR Approval Rec'd: Y  
Need for More Plans: Y

Need in Step 2

**Step 2: CM completes:**

cap req 2,500

County Name: Barry County \*\* Current POC County  
# of PCPs: 0  
# of Peds: 0  
# of OB/Gyn: 0  
Cardiologist: 0  
Dermatologist: 0  
Ophthalmologist: 0  
Orthopods: 0  
Gastroenterologist: 0  
Neurologist: 0  
Ped Sub-Specialist: 0

RBC %

439%

What was total  
enrollment for RBC?  
Additional Members

50,923

HP can  
accommodate?

11,590

Evaluate: PCPs accepting new patients ratio:requested capacity (1:750)

0

**Step 2: CM completes:**

cap req 2,500

County Name: Cass County  
# of PCPs: 0  
# of Peds: 0  
# of OB/Gyn: 0  
Cardiologist: 0

Dermatologist:	0
Ophthalmologist:	0
Orthopods:	0
Gastroenterologist:	0
Neurologist:	0
Ped Sub-Specialist:	0
Is RBC high enough to cover capacity req'd?	439%
What was total enrollment for RBC?	50,923
Additional Members HP can accommodate?	11,590
Evaluate: PCPs accepting new patients ratio:requested capacity (1:750)	0

<b>Step 2: CM completes:</b>	<b>cap req 10,000</b>
County Name:	Kalamazoo
# of PCPs:	58
# of Peds:	12
# of OB/Gyn:	21
Cardiologist:	6
Dermatologist:	0
Ophthalmologist:	0
Orthopods:	7-orthopaedic surgery
Gastroenterologist:	0
Neurologist:	16
Ped Sub-Specialist:	0
Is RBC high enough to cover capacity req'd?	439%
What was total enrollment for RBC?	50,923
Additional Members HP can accommodate?	11,590
Evaluate: PCPs accepting new patients ratio:requested capacity (1:750)	(1:172)

<b>Step 2: CM completes:</b>	<b>cap req 5,000</b>
County Name:	St. Joseph County
# of PCPs:	4-Family Practice
# of Peds:	0
# of OB/Gyn:	0
Cardiologist:	3
Dermatologist:	0
Ophthalmologist:	0
Orthopods:	0
Gastroenterologist:	0
Neurologist:	1-Neurological Surgery
Ped Sub-Specialist:	0
Is RBC high enough to cover capacity req'd?	439%

What was total enrollment for RBC?	<u>50,923</u>
Additional Members HP can accommodate?	<u>11,590</u>
Evaluate: PCPs accepting new patients ratio:requested capacity (1:750)	<u>(1:1250)</u>

**Step 2: CM completes:**

County Name:	
# of PCPs:	<u>taken from 4275 MIEnrolls</u>
# of Peds:	<u>taken from 4275 MIEnrolls</u>
# of OB/Gyn:	<u>taken from 4275 MIEnrolls</u>
Cardiologist:	<u>taken from 4275 MIEnrolls</u>
Dermatologist:	<u>taken from 4275 MIEnrolls</u>
Ophthalmologist:	<u>taken from 4275 MIEnrolls</u>
Orthopods:	<u>taken from 4275 MIEnrolls</u>
Gastroenterologist:	<u>taken from 4275 MIEnrolls</u>
Neurologist:	<u>taken from 4275 MIEnrolls</u>
Ped Sub-Specialist:	<u>taken from 4275 MIEnrolls</u>
Is RBC high enough to cover capacity req'd?	<u>taken from Capacity Folder, RBC &amp; Capacity Summary</u>
What was total enrollment for RBC?	<u>use RBC &amp; Capacity Summary Report</u>
Additional Members HP can accommodate?	<u>use RBC &amp; Capacity Summary Report</u>
Evaluate: PCPs accepting new patients ratio:requested capacity (1:750)	<u>calculate from 4275 and req'd capacity</u>



### OCH - April 2011 PMR Data

#### Step 3: QA review analysis:

<u>Measure</u>	<u>Current Month Rate</u>	<u>2011 Standard</u>	<u>Points Awarded</u>
Childhood Immunizations	<u>82%</u>	84%	<div>0</div>
Prenatal Care	<u>86%</u>	87%	<div>0</div>
Postpartum Care	<u>64%</u>	67%	<div>0</div>
Well Child Visits, 15 months - HEDIS	<u>59%</u>	65%	<div>0</div>
Well Child Visits, 3 to 6 years - HEDIS	<u><b>77%</b></u>	71%	<div>5</div>
Blood Lead Testing for Two year olds	<u>71%</u>	80%	<div>0</div>
<b>Subtotal</b>			<div><u>5</u></div>
Complaints	<u><b>met 0.013</b></u>	<.250/100mm	<div>5</div>
Encounter Data Reporting - Timely, Complete	<u><b>met 12/12</b></u>	Timely, Complete	<div>5</div>
Provider File Reporting - Timely, Complete	<u><b>met 12/12</b></u>	Timely, Complete	<div>5</div>
Claims Processing - Timely & Accurate more than 95%, less then 1.75%	<u><b>met 12/12</b></u>	Timely, Complete	<div>5</div>
Pharmacy Data Reporting - Timely, Complete	<u>met 11/12</u>	Timely, Accurate	<div>0</div>
<b>Subtotal</b>			<div><u>20</u></div>
<b>Total Points Awarded</b>			<div><u><u>25</u></u></div>

**Bolded rates = Meets or Exceeds Standard**

*Rates obtained from the most recent MHP Performance Monitoring Report*

*Each measure is worth 5 points. Each measure will be awarded 5 points or 0 points.*

## OCH - Key Measures

### Step 4: QA input rates & trending; Committee input points

<u>Key Measure</u>	<u>2008 Rate</u>	<u>2009 Rate</u>	<u>2010 Rate</u>	<u>2010 MI Weighted Avg</u>	<u>Trending</u>	<u>Points Awarded</u>
Childhood Immunizations Combo 2	82.4%	83.3%	82.2%	78.7%	↓	5+4=9
Childhood Immunizations Combo 3	58.8%	64.6%	67.8%	74.0%	↑	0
Lead Screening in Children	74.1%	78.9%	78.0%	76.5%	↔	5+2=7
Well-Child Visits, 15 months - 0 visits	1.9%	1.2%	0.50%	0.70%	↑	5
Well-Child Visits, 15 months - 6 or more visits	55.8%	59.3%	59.3%	69.5%	↔	0
Well-Child Visits, 3-6 years old	73.6%	75.5%	76.9%	75.9%	↑	5+1=6
Breast Cancer Screening in Women	49.7%	49.4%	49.8%	55.1%	↔	0
Cervical Cancer Screening in Women	67.5%	67.5%	69.8%	72.7%	↑	0
Timeliness of Prenatal Care	84.9%	85.6%	R	88.9%	↔	0
Timeliness of Postpartum Care	52.2%	64.1%	R	71.4%	↔	0
Advising Smokers & Tobacco Users to Quit*	NA	NA	81.4%	76.9%	↑	5+5=10
Discussing Tobacco Cessation Strategies*	NA	NA	43.5%	40.4%	↑	5+3=8
<b>Total Points Awarded</b>						<u><u>45</u></u>

\*New measures in 2010, no history available.

<u>Point System</u>	
Not Met	0 pts
Met	5 pts
	1 additional pt, for each point over the standard
Exceeded	

Rates obtained from the current HEDIS Aggregate Report, Appendix C  
(available on division drive, HEDIS folder)

## OCH - Total Awarded Quality Points

	<b>Awarded Points</b>	<b>Minimum Possible Points</b>	<b>Bonus Points</b>
PMR DATA:	25	55	0
Key Measures:	45	60	15 of 45
<b>Total</b>	70	115	

### **Step 5 Finalization:** *To be completed by CM & QA together, after discussion*

Approval/Denial Recommendation: See Below

Date: 6/10/2011

Rationalization:

We are recommending the request be denied for Barry and Cass counties due to the lack of providers located within each county.

We are recommending approval for 10,000 enrollees in Kalamazoo County and 1,000 enrollees in St. Joseph County. OCH requested approval for 5,000 enrollees in St. Joseph but the RBC and current enrollment do not support the MHP being able to accommodate the capacity requested.

Review of the MI Enrolls provider file for OCH indicates:

\*58 PCP's, 12 Pediatricians, and 21 Obs in Kalamazoo County

\*4 PCP's, 0 Pediatricians, 0 Obs in St Joseph County

OCH submitted proof of a participating hospital agreement with Borgess in Kalamazoo but the record has not been sent in the 4275 yet per MAXSTAR.

OCH did not submit a hospital for St. Joseph and there are hospitals in the area.

Hospital Access Agreements exist for Sturgis Memorial and Three Rivers Area Hospital.

**MCL MHP**

McLaren Health Plan  
G3245 Beecher Rd. Ste 200  
Flint, 810.733.9700

QA: In Medicaid Since:	1998
QA: Accreditation:	NCQA til 8.26.12
CM: Membership Volume:	76,016 (Nov 2011 Carol Armstrong Report)
CM: Counties of Current Operation:	Arenac, Bay, Charlevoix, Cheboygan, Clare, Clinton, Eaton, Genesee, Gladwin, Gratiot, Huron, Ingham, Ionia, Iosco, Isabella, Lapeer, Macomb, Midland, Montcalm, Oakland, Ogemaw, Oscoda, Roscommon, Saginaw, St. Clair, Sanilac, Shiawassee, Tuscola.

**Step 1: CM completes:**

Date Request Received: 10/31/2011  
 Count(ies) Requested: Emmet and Kalamazoo Counties  
 Effective Date: January 2012 enrollments per new schedule  
 Requested Capacity: 1,500 & 2,000  
 OFIR Approval Rec'd: Y  
 Need for More Plans: Y-Emmet: Max=3 ;Y-Kazoo: Max=5

**Step 2: CM completes:**

County Name:	Cap Req'd: 1,500	Contig?	Hospital(s)?	Preferred Opt?
Emmet County	Charlevoix/Cheboygan	1 in co./2 contig.	No	
# of PCPs:	10 all accepting new	23		
# of Peds:	1	1		
# of OB/Gyn:	1	4		
Cardiologist:	17	0		
Dermatologist:	0	0		
Ophthalmologist:	0	2		
Orthopods:	0	0		
Gastroenterologist:	0	0		
Neurologist:	4 Neurosurgery	1 Neurosurgery		
Ped Sub-Specialist:	1			
RBC %	871%			
What was total enrollment for RBC?	78,889			
Additional Members MHP Can Accommodate?	9,053			
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	(1:150)			

**Step 2: CM completes:**

County Name:	Cap Req'd: 2,000	Contig?	Hospital(s)?	Preferred Opt?
Kalamazoo County	81 w/6 accepting new patients	104	1/2 Contig.	No
# of PCPs:	33	23		
# of Peds:	21	20		
# of OB/Gyn:	38	50		
Cardiologist:	0	0		
Dermatologist:				

Ophthalmologist:	<u>1</u>	5		
Orthopods:	<u>10 Orthopaedic Surgery</u>	same type=6		
Gastroenterologist:	<u>0</u>	1=ENT		
Neurologist:	<u>20 Neurology &amp; 19 Neursurgery</u>	same types 3 & 31		
Ped Sub-Specialist:	<u>0</u>	0		
RBC %	<u>871%</u>			
What was total enrollment for RBC?	<u>78,889</u>			
Additional Members				
MHP Can				
Accommodate?	<u>9,053</u>	contig=Allegan, Calhoun, Cass, Saint Joseph, Van Buren		
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)				
	<u>(1:333)</u>			

<b>Step 2: CM completes:</b>	<b>Cap Req'd:</b>	<b>Contig?</b>	<b>Hospital(s)?</b>	<b>Preferred Opt?</b>
County Name:				
# of PCPs:	<u>taken from 4275 MIEnrolls</u>			
# of Peds:	<u>taken from 4275 MIEnrolls</u>			
# of OB/Gyn:	<u>taken from 4275 MIEnrolls</u>			
Cardiologist:	<u>taken from 4275 MIEnrolls</u>			
Dermatologist:	<u>taken from 4275 MIEnrolls</u>			
Ophthalmologist:	<u>taken from 4275 MIEnrolls</u>			
Orthopods:	<u>taken from 4275 MIEnrolls</u>			
Gastroenterologist:	<u>taken from 4275 MIEnrolls</u>			
Neurologist:	<u>taken from 4275 MIEnrolls</u>			
Ped Sub-Specialist:	<u>taken from 4275 MIEnrolls</u>			
RBC %	<u>taken from Capacity Folder, RBC &amp; Capacity Summary</u>			
What was total enrollment for RBC?	<u>use RBC &amp; Capacity Summary Report</u>			
Additional Members				
MHP Can				
Accommodate?	<u>use RBC &amp; Capacity Summary Report</u>			
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	<u>calculate from 4275 and req'd capacity</u>			

<b>Step 2: CM completes:</b>	<b>Cap Req'd:</b>	<b>Contig?</b>	<b>Hospital(s)?</b>	<b>Preferred Opt?</b>
County Name:				
# of PCPs:	<u>taken from 4275 MIEnrolls</u>			
# of Peds:	<u>taken from 4275 MIEnrolls</u>			
# of OB/Gyn:	<u>taken from 4275 MIEnrolls</u>			
Cardiologist:	<u>taken from 4275 MIEnrolls</u>			
Dermatologist:	<u>taken from 4275 MIEnrolls</u>			
Ophthalmologist:	<u>taken from 4275 MIEnrolls</u>			
Orthopods:	<u>taken from 4275 MIEnrolls</u>			
Gastroenterologist:	<u>taken from 4275 MIEnrolls</u>			
Neurologist:	<u>taken from 4275 MIEnrolls</u>			
Ped Sub-Specialist:	<u>taken from 4275 MIEnrolls</u>			
RBC %	<u>taken from Capacity Folder, RBC &amp; Capacity Summary</u>			

What was total enrollment for RBC?	<u>use RBC &amp; Capacity Summary Report</u>		
Additional Members			
MHP Can			
Accommodate?	<u>use RBC &amp; Capacity Summary Report</u>		
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	<u>calculate from 4275 and req'd capacity</u>		

<b>Step 2: CM completes:</b>	<b>Cap Req'd:</b>	<b>Contig?</b>	<b>Hospital(s)?</b>	<b>Preferred Opt?</b>
County Name:				
# of PCPs:	<u>taken from 4275 MIEnrolls</u>			
# of Peds:	<u>taken from 4275 MIEnrolls</u>			
# of OB/Gyn:	<u>taken from 4275 MIEnrolls</u>			
Cardiologist:	<u>taken from 4275 MIEnrolls</u>			
Dermatologist:	<u>taken from 4275 MIEnrolls</u>			
Ophthalmologist:	<u>taken from 4275 MIEnrolls</u>			
Orthopods:	<u>taken from 4275 MIEnrolls</u>			
Gastroenterologist:	<u>taken from 4275 MIEnrolls</u>			
Neurologist:	<u>taken from 4275 MIEnrolls</u>			
Ped Sub-Specialist:	<u>taken from 4275 MIEnrolls</u>			
RBC %	<u>taken from Capacity Folder, RBC &amp; Capacity Summary</u>			
What was total enrollment for RBC?	<u>use RBC &amp; Capacity Summary Report</u>			
Additional Members				
MHP Can				
Accommodate?	<u>use RBC &amp; Capacity Summary Report</u>			
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	<u>calculate from 4275 and req'd capacity</u>			

### MCL Health Plan - ( Sept. 2011 ) PMR Data

#### Step 3: QA review analysis:

<u>Measure</u>	<u>Current Month Rate</u>	<u>2011 Standard</u>	<u>Points Awarded</u>
Childhood Immunizations, combo 3	<u>83%</u>	84%	<div>0</div>
Prenatal Care	<u>97%</u>	87%	<div>5</div>
Postpartum Care	<u>85%</u>	67%	<div>5</div>
Well Child Visits, 15 months - HEDIS	<u>67%</u>	65%	<div>5</div>
Well Child Visits, 3 to 6 years - HEDIS	<u>67%</u>	71%	<div>0</div>
Blood Lead Testing for Two year olds	<u>76%</u>	80%	<div>0</div>
<b>Subtotal Clinical Points</b>			<div>15</div>
Complaints	<u>4/4 Met</u>	<.250/100mm	<div>5</div>
Encounter Data Reporting - Timely, Complete	<u>12/12 Met</u>	Timely, Complete	<div>5</div>
Provider File Reporting - Timely, Complete	<u>12/12 Met</u>	Timely, Complete	<div>5</div>
Claims Processing - Timely & Accurate more than 95%, less then 1.75%	<u>12/12 Met</u>	Timely, Complete	<div>5</div>
Pharmacy Data Reporting - Timely, Complete	<u>10/12 unmet</u>	Timely, Accurate	<div>0</div>
<b>Subtotal non-Clinical Points</b>			<div>20</div>
<b>Total Points Awarded</b>			<div>35</div>

**Bolded rates = Meets or Exceeds Standard**

*Rates obtained from the most recent MHP Performance Monitoring Report. Stnds effective by Calendar Year.*

*Non-clinical measures must meet the standard every month to receive 5 points (i.e. 11/12 would receive 0 points).*

*Each measure is worth 5 points. Each measure will be awarded 5 points or 0 points.*

## MCL Health Plan - Key Measures

### Step 4: QA input rates & trending; Committee input points

<u>Key Measure</u>	<u>2009 Rate</u>	<u>2010 Rate</u>	<u>2011 Rate</u>	<u>2011 MI Weighted Avg</u>	<u>Trending</u>	<u>Points Awarded</u>
Childhood Immunizations Combo 2	83.5%	83.2%	86.6%	78.2%	↑	5+8=13
Childhood Immunizations Combo 3	77.4%	83.2%	84.7%	74.3%	↑	5+10=15
Lead Screening in Children	77.6%	82.7%	75.7%	78.0%	↓	0
Well-Child Visits, 15 months - 6 or more visits	62.3%	67.4%	73.5%	72.3%	↑	5+1=6
Well-Child Visits, 3-6 years old	77.4%	67.2%	73.0%	78.0%	↑	0
Breast Cancer Screening in Women	50.7%	52.5%	53.0%	56.3%	↑	0
Cervical Cancer Screening in Women	70.3%	71.3%	74.7%	74.3%	↑	5
Timeliness of Prenatal Care	92.2%	96.8%	95.4%	88.4%	↔	5+8=13
Timeliness of Postpartum Care	83.0%	85.2%	83.0%	70.7%	↔	5+13=18
Advising Smokers & Tobacco Users to Quit*	NA	76.7%	79.5%	78.2%		5+1=6
Discussing Tobacco Cessation Strategies*	NA	34.0%	34.8%	41.3%		0
<b>Total Points Awarded</b>						<b>71</b>

\*New measures in 2010, no history available.

<u>Point System</u>	
Not Met	0 pts
Met	5 pts
Exceeded	1 additional pt, for each point over the standard

Rates obtained from the current HEDIS Aggregate Report, Appendix C  
(available on division drive, HEDIS folder)

Trending Arrows (use keypad on keyboard):	<u>Keypad #</u>	<u>Trend Symbol</u>
	6	↓
	5	↑
	1	↔



### MCL - Total Awarded Quality Points

	<b>Awarded Points</b>	<b>Maximum Possible Points</b>	<b>Bonus Points</b>
PMR DATA:	35	55	
Key Measures:	71	55	41
<b>Total</b>	106	110	41

**Step 5 Finalization:** *To be completed by CM & QA together, after discussion*

Approval/Denial Recommendation: Recommending approval for Emmet (1,500

Date: 1-Jan-12 members) and Kalamazoo (2,000 members).

Rationalization:

Based on provider network and quality scores the committee recommends Service Area Expansion for both Emmet and Kalamazoo counties.

**PHP**

PHP  
1400 E Michigan Ave, Lansing, MI  
48912  
517.364.8400

QA:	In Medicaid Since:	1/1/2003
QA:	Accreditation:	NCQA till 9/26/2012
CM:	Membership Volume:	18,101 (November 2011 Carol Armstrong Report)
CM:	Counties of Current Operation:	Clinton Eaton Ingham Ionia Shiawassee

**Step 1: CM completes:**

Date Request Received: 10/31/2011  
Count(ies) Requested: Isabella and Kalamazoo  
Effective Date: January 2012 per new schedule  
Requested Capacity: 200 & 1,000  
OFIR Approval Rec'd: Y  
Need for More Plans: Y:Max=4, Y:Max=5

Step 2: CM completes:	Cap Req'd: 200	Contig?	Hospital(s)?	Preferred Opt?
County Name:	Isabella County		1	No
# of PCPs:	18 (5 are accepting new)			
# of Peds:	4			
# of OB/Gyn:	4			
Cardiologist:	3 (2 cardiovascular, 1 cardiology)			
Dermatologist:	2			
Ophthalmologist:	2			
Orthopods:	3			
Gastroenterologist:	1			
Neurologist:	1			
Ped Sub-Specialist:	0			
RBC %	306%			
What was total enrollment for RBC?	18,789			
Additional Members MHP Can Accommodate?	6,137			
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	(1:40)			

Step 2: CM completes:	Cap Req'd: 1,000	Contig?	Hospital(s)?	Preferred Opt?
County Name:	Kalamazoo County		1	No
# of PCPs:	19 (14 accepting new)			
# of Peds:	13			
# of OB/Gyn:	10			
Cardiologist:	0			
Dermatologist:	2			

Ophthalmologist:	<u>1</u>		
Orthopods:	<u>39 (possibly duplicated)</u>		
Gastroenterologist:	<u>0</u>		
Neurologist:	<u>10 (5 neurology, 5 neurological surgery)</u>		
Ped Sub-Specialist:	<u>10</u>		
RBC %	<u>306%</u>		
What was total enrollment for RBC?	<u>18,789</u>		
Additional Members			
MHP Can			
Accommodate?	<u>6,137</u>		
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	<u>(1:74)</u>		
SPCs 178			

<b>Step 2: CM completes:</b>	<b>Cap Req'd:</b>	<b>Contig?</b>	<b>Hospital(s)?</b>	<b>Preferred Opt?</b>
County Name:				
# of PCPs:	<u>taken from 4275 MIEnrolls</u>			
# of Peds:	<u>taken from 4275 MIEnrolls</u>			
# of OB/Gyn:	<u>taken from 4275 MIEnrolls</u>			
Cardiologist:	<u>taken from 4275 MIEnrolls</u>			
Dermatologist:	<u>taken from 4275 MIEnrolls</u>			
Ophthalmologist:	<u>taken from 4275 MIEnrolls</u>			
Orthopods:	<u>taken from 4275 MIEnrolls</u>			
Gastroenterologist:	<u>taken from 4275 MIEnrolls</u>			
Neurologist:	<u>taken from 4275 MIEnrolls</u>			
Ped Sub-Specialist:	<u>taken from 4275 MIEnrolls</u>			
RBC %	<u>taken from Capacity Folder, RBC &amp; Capacity Summary</u>			
What was total enrollment for RBC?	<u>use RBC &amp; Capacity Summary Report</u>			
Additional Members				
MHP Can				
Accommodate?	<u>use RBC &amp; Capacity Summary Report</u>			
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	<u>calculate from 4275 and req'd capacity</u>			

<b>Step 2: CM completes:</b>	<b>Cap Req'd:</b>	<b>Contig?</b>	<b>Hospital(s)?</b>	<b>Preferred Opt?</b>
County Name:				
# of PCPs:	<u>taken from 4275 MIEnrolls</u>			
# of Peds:	<u>taken from 4275 MIEnrolls</u>			
# of OB/Gyn:	<u>taken from 4275 MIEnrolls</u>			
Cardiologist:	<u>taken from 4275 MIEnrolls</u>			
Dermatologist:	<u>taken from 4275 MIEnrolls</u>			
Ophthalmologist:	<u>taken from 4275 MIEnrolls</u>			
Orthopods:	<u>taken from 4275 MIEnrolls</u>			
Gastroenterologist:	<u>taken from 4275 MIEnrolls</u>			
Neurologist:	<u>taken from 4275 MIEnrolls</u>			
Ped Sub-Specialist:	<u>taken from 4275 MIEnrolls</u>			
RBC %	<u>taken from Capacity Folder, RBC &amp; Capacity Summary</u>			

What was total enrollment for RBC?	<u>use RBC &amp; Capacity Summary Report</u>		
Additional Members			
MHP Can			
Accommodate?	<u>use RBC &amp; Capacity Summary Report</u>		
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	<u>calculate from 4275 and req'd capacity</u>		

<b>Step 2: CM completes:</b>	<b>Cap Req'd:</b>	<b>Contig?</b>	<b>Hospital(s)?</b>	<b>Preferred Opt?</b>
County Name:				
# of PCPs:	<u>taken from 4275 MIEnrolls</u>			
# of Peds:	<u>taken from 4275 MIEnrolls</u>			
# of OB/Gyn:	<u>taken from 4275 MIEnrolls</u>			
Cardiologist:	<u>taken from 4275 MIEnrolls</u>			
Dermatologist:	<u>taken from 4275 MIEnrolls</u>			
Ophthalmologist:	<u>taken from 4275 MIEnrolls</u>			
Orthopods:	<u>taken from 4275 MIEnrolls</u>			
Gastroenterologist:	<u>taken from 4275 MIEnrolls</u>			
Neurologist:	<u>taken from 4275 MIEnrolls</u>			
Ped Sub-Specialist:	<u>taken from 4275 MIEnrolls</u>			
RBC %	<u>taken from Capacity Folder, RBC &amp; Capacity Summary</u>			
What was total enrollment for RBC?	<u>use RBC &amp; Capacity Summary Report</u>			
Additional Members				
MHP Can				
Accommodate?	<u>use RBC &amp; Capacity Summary Report</u>			
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	<u>calculate from 4275 and req'd capacity</u>			

**PHP - September 2011 PMR Data**

**Step 3: QA review analysis:**

<u>Measure</u>	<u>Current Month Rate</u>	<u>2011 Standard</u>	<u>Points Awarded</u>
Childhood Immunizations, combo 3	<u>77%</u>	84%	<div>0</div>
Prenatal Care	<u>85%</u>	87%	<div>0</div>
Postpartum Care	<b><u>69%</u></b>	67%	<div>5</div>
Well Child Visits, 15 months - HEDIS	<u>52%</u>	65%	<div>0</div>
Well Child Visits, 3 to 6 years - HEDIS	<u>61%</u>	71%	<div>0</div>
Blood Lead Testing for Two year olds	<b><u>84%</u></b>	80%	<div>5</div>
<b>Subtotal</b>			<div>10</div>
Complaints	<b><u>4/4 Met</u></b>	<.250/100mm	<div>5</div>
Encounter Data Reporting - Timely, Complete	<b><u>12/12 Met</u></b>	Timely, Complete	<div>5</div>
Provider File Reporting - Timely, Complete	<b><u>12/12 Met</u></b>	Timely, Complete	<div>5</div>
Claims Processing - Timely & Accurate more than 95%, less then 1.75%	<b><u>12/12 Met</u></b>	Timely, Complete	<div>5</div>
Pharmacy Data Reporting - Timely, Complete	<b><u>12/12 Met</u></b>	Timely, Accurate	<div>5</div>
<b>Subtotal</b>			<div>25</div>
<b>Total Points Awarded</b>			<div>35</div>

**Bolded rates = Meets or Exceeds Standard**

*Rates obtained from the most recent MHP Performance Monitoring Report. Stnds effective by Calendar Year.*

*Non-clinical measures must meet the standard every month to receive 5 points (i.e. 11/12 would receive 0 points).*

*Each measure is worth 5 points. Each measure will be awarded 5 points or 0 points.*

## PHP - Key Measures

### Step 4: QA input rates & trending; Committee input points

<u>Key Measure</u>	<u>2009 Rate</u>	<u>2010 Rate</u>	<u>2011 Rate</u>	<u>2011 MI Weighted Avg</u>	<u>Trending</u>	<u>Points Awarded</u>
Childhood Immunizations Combo 2	81.1%	77.1%	77.1%	78.2%	↓	0
Childhood Immunizations Combo 3	74.4%	73.2%	73.2%	74.3%	↓	0
Lead Screening in Children	85.0%	84.0%	85.6%	78.0%		5+7=12
Well-Child Visits, 15 months - 6 or more visits	63.2%	52.1%	58.0%	72.3%	↓	0
Well-Child Visits, 3-6 years old	64.0%	61.1%	61.1%	78.0%	↓	0
Breast Cancer Screening in Women	48.9%	50.4%	46.0%	56.3%	↓	0
Cervical Cancer Screening in Women	71.2%	71.2%	69.3%	74.3%	↓	0
Timeliness of Prenatal Care	83.5%	85.4%	91.5%	88.4%	↑	5+3=8
Timeliness of Postpartum Care	67.0%	68.6%	66.4%	70.7%	↓	0
Advising Smokers & Tobacco Users to Quit*	NA	80.1%	80.8%	78.2%	↑	5+2=7
Discussing Tobacco Cessation Strategies*	NA	41.8%	40.4%	41.3%	↓	0
<b>Total Points Awarded</b>						<u><u>27</u></u>

\*New measures in 2010, no history available.

<u>Point System</u>	
Not Met	0 pts
Met	5 pts
Exceeded	1 additional pt, for each point over the standard

Rates obtained from the current HEDIS Aggregate Report, Appendix C  
(available on division drive, HEDIS folder)

Trending Arrows (use keypad on keyboard):	<u>Keypad #</u>	<u>Trend Symbol</u>
	6	↓
	5	↑
	1	↔

**PHP - Total Awarded Quality Points**

	<b>Awarded Points</b>	<b>Maximum Possible Points</b>	<b>Bonus Points</b>
PMR DATA:	35	55	
Key Measures:	27	55	12
<b>Total</b>	62	110	12

**Step 5 Finalization:** *To be completed by CM & QA together, after discussion*

Approval/Denial Recommendation Recommend approval for Isabella (200 members) and denial  
Date: 1/1/12 for Isabella for Kalamazoo County)

Rationalization:

Committee recommends approval for Isabella county. Kalamazoo county is denied as MCL provided a strong provider network and quality scores are considerably higher than PHP.

**PRI**

Priority Health Government  
Programs  
1231 E. Beltline NE                      Grand  
Rapids, MI 49525

QA: In Medicaid Since:	Oct-02
QA: Accreditation:	NCQA, Excellent, effective 4/6/2009
CM: Membership Volume:	64,002 (November 2011 Carol Armstrong Report)
CM: Counties of Current Operation:	Allegan, Grand Traverse, Hillsdale, Jackson, Kent, Leelanau, Manistee, Mecosta, Montcalm, Muskegon, Osceola, Ottawa

<b>Step 1: CM completes:</b>	
Date Request Received:	10/31/2011
Count(ies) Requested:	Emmet, Mason, Newaygo, VanBuren
Effective Date:	January 2012 enrollments per new schedule
Requested Capacity:	1,000; 1,000; 2,000; 3,000
OFIR Approval Rec'd:	Y
Need for More Plans:	Y:Max=3, Y:Max=4, Y:Max=4, Y:Max=5

<b>Step 2: CM completes:</b>	<b>Cap Req'd: 1,000</b>	<b>Contig?</b>	<b>Hospital(s)?</b>	<b>Preferred Opt?</b>
County Name:	<b>Emmet County</b>		1	No
# of PCPs:	15 (12 are accepting new)			
# of Peds:	2			
# of OB/Gyn:	3			
Cardiologist:	11 Cardiovascular			
Dermatologist:	0			
Ophthalmologist:	5			
Orthopods:	8 orthopaedic surgery			
Gastroenterologist:	1			
Neurologist:	2 Neurosurgery, 1 Neurology			
Ped Sub-Specialist:	1 Pediatric Cardiology			
RBC %	441%			
What was total enrollment for RBC?	61,820			
Additional Members MHP Can Accommodate?	14,033			
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	(1:83)			

<b>Step 2: CM completes:</b>	<b>Cap Req'd: 1,000</b>	<b>Contig?</b>	<b>Hospital(s)?</b>	<b>Preferred Opt?</b>
County Name:	<b>Mason County</b>		1	No
# of PCPs:	8 (All accepting new)			
# of Peds:	3			
# of OB/Gyn:	1			
Cardiologist:	0			
Dermatologist:	0			



Ophthalmologist:	5		
Orthopods:	0		
Gastroenterologist:	0		
Neurologist:	0		
Ped Sub-Specialist:	0		
RBC %	441%		
What was total enrollment for RBC?	61,820		
Additional Members			
MHP Can			
Accommodate?	14,033		
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	(1:125)		

<b>Step 2: CM completes:</b>	<b>Cap Req'd: 2,000</b>	<b>Contig?</b>	<b>Hospital(s)?</b>	<b>Preferred Opt?</b>
County Name:	Newaygo County		0 (Y-HAA signed)	No
# of PCPs:	42 (All accepting new)			
# of Peds:	6			
# of OB/Gyn:	5			
Cardiologist:	0			
Dermatologist:	0			
Ophthalmologist:	0			
Orthopods:	Orthopaedic surgery = 2			
Gastroenterologist:	0			
Neurologist:	0			
Ped Sub-Specialist:	ADHD=2			
RBC %	441%			
What was total enrollment for RBC?	61,820			
Additional Members				
MHP Can				
Accommodate?	14,033			
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	(1:48)			

<b>Step 2: CM completes:</b>	<b>Cap Req'd: 3,000</b>	<b>Contig?</b>	<b>Hospital(s)?</b>	<b>Preferred Opt?</b>
County Name:	Van Buren County		1	No
# of PCPs:	13 (All accepting new)			
# of Peds:	2			
# of OB/Gyn:	2			
Cardiologist:	0			
Dermatologist:	0			
Ophthalmologist:	0			
Orthopods:	Orthopaedic Surgery 1			
Gastroenterologist:	0			
Neurologist:	0			
Ped Sub-Specialist:	0			
RBC %	441%			

What was total enrollment for RBC?	61,820		
Additional Members			
MHP Can			
Accommodate?	14,033		
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	(1:231)		

Step 2: CM completes:	Cap Req'd:	Contig?	Hospital(s)?	Preferred Opt?
County Name:				
# of PCPs:	<u>taken from 4275 MIEnrolls</u>			
# of Peds:	<u>taken from 4275 MIEnrolls</u>			
# of OB/Gyn:	<u>taken from 4275 MIEnrolls</u>			
Cardiologist:	<u>taken from 4275 MIEnrolls</u>			
Dermatologist:	<u>taken from 4275 MIEnrolls</u>			
Ophthalmologist:	<u>taken from 4275 MIEnrolls</u>			
Orthopods:	<u>taken from 4275 MIEnrolls</u>			
Gastroenterologist:	<u>taken from 4275 MIEnrolls</u>			
Neurologist:	<u>taken from 4275 MIEnrolls</u>			
Ped Sub-Specialist:	<u>taken from 4275 MIEnrolls</u>			
RBC %	<u>taken from Capacity Folder, RBC &amp; Capacity Summary</u>			
What was total enrollment for RBC?	<u>use RBC &amp; Capacity Summary Report</u>			
Additional Members				
MHP Can				
Accommodate?	<u>use RBC &amp; Capacity Summary Report</u>			
Evaluate: PCPs accepting new patients ratio: requested capacity (1:750)	<u>calculate from 4275 and req'd capacity</u>			

**Priority - September 2011 PMR Data**

**Step 3: QA review analysis:**

<b><u>Measure</u></b>	<b><u>Current Month Rate</u></b>	<b><u>2011 Standard</u></b>	<b><u>Points Awarded</u></b>
Childhood Immunizations, combo 3	<b>87%</b>	84%	5
Prenatal Care	<b>87%</b>	87%	5
Postpartum Care	<b>74%</b>	67%	5
Well Child Visits, 15 months - HEDIS	<b>62%</b>	65%	0
Well Child Visits, 3 to 6 years - HEDIS	<b>72%</b>	71%	5
Blood Lead Testing for Two year olds	<b>74%</b>	80%	0
<b>Subtotal</b>			<b>20</b>
Complaints	<b>4/4 Met</b>	<.250/100mm	5
Encounter Data Reporting - Timely, Complete	<b>12/12 Met</b>	Timely, Complete	5
Provider File Reporting - Timely, Complete	<b>12/12 Met</b>	Timely, Complete	5
Claims Processing - Timely & Accurate more than 95%, less than 1.75%	<b>8/12 unmet</b>	Timely, Complete	0
Pharmacy Data Reporting - Timely, Complete	<b>10/12 unmet</b>	Timely, Accurate	0
<b>Subtotal</b>			<b>15</b>
<b>Total Points Awarded</b>			<b>35</b>

**Bolded rates = Meets or Exceeds Standard**

*Rates obtained from the most recent MHP Performance Monitoring Report. Stnds effective by Calendar Year.*

*Non-clinical measures must meet the standard every month to receive 5 points (i.e. 11/12 would receive 0 points).*

*Each measure is worth 5 points. Each measure will be awarded 5 points or 0 points.*

## Priority - Key Measures

### Step 4: QA input rates & trending; Committee input points

<u>Key Measure</u>	<u>2009 Rate</u>	<u>2010 Rate</u>	<u>2011 Rate</u>	<u>2011 MI Weighted Avg</u>	<u>Trending</u>	<u>Points Awarded</u>
Childhood Immunizations Combo 2	85.0%	87.0%	87.0%	78.2%	↑	5+9=14
Childhood Immunizations Combo 3	80.2%	83.3%	83.3%R	74.3%	↔	5+9=14
Lead Screening in Children	78.3%	73.6%	72.0%	78.0%	↓	0
Well-Child Visits, 15 months - 6 or more visits	69.8%	62.4%	64.7%	72.3%	↔	0
Well-Child Visits, 3-6 years old	71.9%	71.6%	70.7%	78.0%	↔	0
Breast Cancer Screening in Women	55.8%	63.2%	64.2%	56.3%	↑	5+8=13
Cervical Cancer Screening in Women	77.8%	80.6%	72.7%	74.3%	↓	0
Timeliness of Prenatal Care	88.3%	87.1%	83.8%	88.4%	↓	0
Timeliness of Postpartum Care	73.2%	74.4%	75.4%	70.7%	↑	5+5=10
Advising Smokers & Tobacco Users to Quit*	NA	80.1%	80.8%	78.2%	↔	5+2=7
Discussing Tobacco Cessation Strategies*	NA	41.8%	40.4%	41.3%		0
<b>Total Points Awarded</b>						<b>58</b>

\*New measures in 2010, no history available.

<u>Point System</u>	
Not Met	0 pts
Met	5 pts
Exceeded	1 additional pt, for each point over the standard

Rates obtained from the current HEDIS Aggregate Report, Appendix C  
(available on division drive, HEDIS folder)

Trending Arrows (use keypad on keyboard):	<u>Keypad #</u>	<u>Trend Symbol</u>
	6	↓
	5	↑
	1	↔

**PRI - Total Awarded Quality Points**

	<b>Awarded Points</b>	<b>Maximum Possible Points</b>	<b>Bonus Points</b>
PMR DATA:	35	55	
Key Measures:	58	55	33
<b>Total</b>	93	110	33

**Step 5 Finalization:** *To be completed by CM & QA together, after discussion*

Approval/Denial Recommendation Recommend approval in Mason (1,000) Newaygo (2,000) and  
Date: 1/1/2012 VanBuren (3,000). Recommend denial in Emmet county.  
Rationalization:  
Committee recommends approval in Mason, Newaygo and VanBuren  
counties. Denial recommended in Emmet as MCL also requested  
expansion and MCL demonstrates stronger quality scores.

# Attachment E

**DEPARTMENT OF COMMUNITY HEALTH  
MANAGED CARE PLAN DIVISION**

**MEMORANDUM**

Date: February 24, 2010

To: Cathy Jones, Section Manager  
Plan Management Section

From: Julie Denny, Contract Manager  
Plan Management Section

Subject: Priority Health Government Programs Service Area Expansion

I wish to inform you that Priority Health Government Programs has received approval to expand its Medicaid service area into Hillsdale and Jackson Counties for enrollments effective April 1, 2010. Priority Health Government Programs will be accepting new patients. Priority Health Government Program's 24-hour access number is 888-975-8102.

Priority Health Government Programs (Voluntary) ID # [REDACTED] Provider Type 17  
Priority Health Government Programs (MCEP) ID # [REDACTED] Provider Type 17

Service Area:

Region	2	Hillsdale County (30)	capacity 2,000
Region	2	Jackson County (38)	capacity 10,000

If you have any questions please call me at [REDACTED]

**DEPARTMENT OF COMMUNITY HEALTH  
MANAGED CARE PLAN DIVISION**

**MEMORANDUM**

Date: June 14, 2010

To: Cathy Jones, Section Manager  
Plan Management Section

From: Julianne Denny, Contract Manager  
Plan Management Section

Subject: Molina Healthcare of Michigan Service Area Expansion

I wish to inform you that Molina Healthcare of Michigan (MOL) has received approval to expand its Medicaid Service Area into Berrien County with enrollment effective dates beginning August 1, 2010. MOL will not be accepting auto assignments in Berrien County until the next algorithm due to not currently being in Region 3. The Molina Healthcare of Michigan 24-hour access number is 888-898-7969.

Molina Healthcare of Michigan	(VOL) ID # [REDACTED]	Provider Type 17
Molina Healthcare of Michigan	(MCEP) ID # [REDACTED]	Provider Type 17

Service Area:  
Region 3      Berrien County (11)      capacity:      1,000

If you have any questions please call me at 517-[REDACTED]



DEPARTMENT OF COMMUNITY HEALTH  
MANAGED CARE PLAN DIVISION

MEMORANDUM

Date: October 19, 2010

To: Cathy Jones, Section Manager  
Plan Management Section

From: Julianne Denny, Contract Manager  
Plan Management Section

Subject: Molina Healthcare of Michigan Service Area Expansion

I wish to inform you that Molina Healthcare of Michigan (MOL) has received approval to expand its Medicaid Service Area into Ingham County with an enrollment effective date beginning December 1, 2010. The MOL 24-hour access number is 888-898-7969. MOL will not be receiving auto assignments in Ingham until the next algorithm that places them in the Region, as they are not currently in Region 5.

Molina Healthcare of Michigan	(VOL ID) # [REDACTED]	Provider Type 17
Molina Healthcare of Michigan	(MCEP) ID # [REDACTED]	Provider Type 17

Service Area:		
Region 5	Ingham County (33)	Capacity: 1,000

If you have any questions please call me at 517-[REDACTED]

**DEPARTMENT OF COMMUNITY HEALTH  
MANAGED CARE PLAN DIVISION**

**MEMORANDUM**

**Date:** June 21, 2011

**To:** Kim Hamilton, Section Manager  
Plan Management Section

**From:** Rajita Dnyate, Contract Manager  
Plan Management Section

**Subject:** McLaren Health Plan Service Area Expansion

I wish to inform you that McLaren Health Plan has received approval to expand its Medicaid service area into Charlevoix and Cheboygan Counties for enrollments effective August 1, 2011. MCL will be accepting new patients. MCL's 24-hour access number is (888) 327-0671.

MCL Voluntary ID # [REDACTED]  
MCL MCEP ID # [REDACTED]

**Service Area:**

Region 4	Charlevoix County (15)	capacity 1,000
Region 4	Cheboygan County (16)	capacity 1,000

If you have any questions please call me at [REDACTED]

**DEPARTMENT OF COMMUNITY HEALTH  
MANAGED CARE PLAN DIVISION**

**MEMORANDUM**

**Date:** June 22, 2011

**To:** Kim Hamilton, Section Manager  
Plan Management Section

**From:** Charlene Hyde, Contract Manager  
Plan Management Section

**Subject:** OmniCare Health Plan Service Area Expansion

I wish to inform you that OmniCare Health Plan (OCH) has received approval to expand its Medicaid service area into Kalamazoo and St. Joseph Counties for enrollments effective August 1, 2011. OCH will be accepting new patients. OCH's 24-hour access number is 866-316-3784.

OCH Voluntary ID # [REDACTED]  
OCH MCEP ID # [REDACTED]

**Service Area:**

Region 3	Kalamazoo County (39)	Capacity 10,000
Region 3	St. Joseph County (75)	Capacity 1,000

If you have any questions please call me at [REDACTED]

**DEPARTMENT OF COMMUNITY HEALTH  
MANAGED CARE PLAN DIVISION**

**MEMORANDUM**

**Date:** July 14, 2011

**To:** Kim Hamilton, Section Manager  
Plan Management Section

**From:** Deb Ridge, Contract Manager  
Plan Management Section

**Subject:** Health Plan of Michigan Service Area Expansion

I wish to inform you that Health Plan of Michigan (HPM) has received approval to expand its Medicaid service area into Charlevoix and Emmet Counties for enrollments effective September 1, 2011. HPM's 24-hour access number is 888-437-0606.

HPM Voluntary ID # [REDACTED]  
PRI MCEP ID # [REDACTED]

**Service Area:**

Region 4	Charlevoix County (15)	capacity 750
Region 4	Emmet County (24)	capacity 1,250

If you have any questions please call me at [REDACTED]

**DEPARTMENT OF COMMUNITY HEALTH  
MANAGED CARE PLAN DIVISION**

**MEMORANDUM**

**Date:** September 6, 2011

**To:** Kim Hamilton, Section Manager  
Plan Management Section

**From:** Charlene Hyde, Contract Manager  
Plan Management Section

**Subject:** OmniCare Health Plan Service Area Expansion

I wish to inform you that OmniCare Health Plan (OCH) has received approval to expand its Medicaid service area into Cass County for enrollments effective October 1, 2011. OCH's 24-hour access number is 866-316-3784.

OCH Voluntary ID # [REDACTED]  
OCH MCEP ID # [REDACTED]

**Service Area:**  
Region 3    Cass County (14)                      Capacity 1,500

If you have any questions please call me at [REDACTED]

DEPARTMENT OF COMMUNITY HEALTH  
MANAGED CARE PLAN DIVISION

MEMORANDUM

Date: November 18, 2011

To: Kim Hamilton, Section Manager  
Plan Management Section

From: Julianne Denny, Contract Manager  
Plan Management Section

Subject: McLaren Health Plan Service Area Expansion

I wish to inform you that McLaren Health Plan (MCL) has received approval to expand its Medicaid service area into Emmet and Kalamazoo Counties for enrollments effective January 1, 2012. The MCL 24-hour access number is 888-327-0671.

McLaren Health Plan	(VOL ID)	#	
McLaren Health Plan	(MCEP ID)	#	

Service Area:

Region 4	Emmet County (24)	Capacity:	1,500
Region 3	Kalamazoo County (39)	Capacity:	2,000

If you have any questions please call me at 517-

DEPARTMENT OF COMMUNITY HEALTH  
MANAGED CARE PLAN DIVISION

MEMORANDUM

Date: November 18, 2011

To: Kim Hamilton, Section Manager  
Plan Management Section

From: Julianne Denny, Contract Manager  
Plan Management Section

Subject: PHP FamilyCare Service Area Expansion

I wish to inform you that PHP FamilyCare (PHP) has received approval to expand its Medicaid service area into Isabella County for enrollments effective January 1, 2012. The PHP 24-hour access number is 800-661-8299.

PHP FamilyCare	(VOL ID)	#	
PHP FamilyCare	(MCEP ID)	#	

Service Area:			
Region 7	Isabella County (37)	Capacity:	200

If you have any questions please call me at 517-

**DEPARTMENT OF COMMUNITY HEALTH  
MANAGED CARE PLAN DIVISION**

**MEMORANDUM**

Date: November 18, 2011

To: Kim Hamilton, Section Manager  
Plan Management Section

From: Julianne Denny, Contract Manager  
Plan Management Section

Subject: Priority Health Government Programs Service Area Expansion

I wish to inform you that Priority Health Government Programs (PRI) has received approval to expand its Medicaid service area into Mason, Newaygo, and Van Buren Counties for enrollments effective January 1, 2012. The PRI 24-hour access number is 888-975-8102.

Priority Health Government Programs  
Priority Health Government Programs

(VOL ID) # [REDACTED]  
(MCEP ID) # [REDACTED]

Service Area:

Region 4	Mason County (53)	Capacity:	1,000
Region 4	Newaygo County (62)	Capacity:	2,000
Region 3	Van Buren County (80)	Capacity:	3,000

If you have any questions please call me at 517-[REDACTED]



## **Attachment F**

### **1.021(C)**

The Contractor may request approval to serve beneficiaries residing in a specific zip code area in a county directly contiguous to the Contractor's approved service area. The Contractor must meet all specifications outlined by DCH and receive DCH approval for the contiguous county exception. The contiguous county will be eligible for voluntary enrollments only; DCH will not auto-assign beneficiaries into the Contractor's plan in the contiguous county. This exception applies solely to Wayne and Oakland Counties.

## Attachment G

County	Max Number of Plans Needed	# of Additional Plans County can accommodate
Alcona	3	0
Alger	2	1*
Allegan	5	0
Alpena	3	0
Antrim	4	1
Arenac	3	0
Baraga	2	1*
Barry	3	2
Bay	4	0
Benzie	2	0
Berrien	4	0
Branch	4	1
Calhoun	4	1
Cass	4	0
Charlevoix	3	0
Cheboygan	2	0
Chippewa	3	2*
Clare	3	0
Clinton	3	0
Crawford	2	0
Delta	3	2*
Dickinson	3	2*
Eaton	4	1
Emmet	3	0
Genesee	6	0
Gladwin	4	0
Gogebic	2	1*
Grand Traverse	4	0
Gratiot	3	0
Hillsdale	4	0
Houghton	4	3*
Huron	4	0
Ingham	5	1
Ionia	4	0
Iosco	4	0
Iron	4	3*
Isabella	4	0
Jackson	4	1
Kalamazoo	5	0
Kalkaska	2	0
Kent	6	1
Keweenaw	2	1*
Lake	2	0
Lapeer	4	0
Leelanau	2	0
Lenawee	4	2
Livingston	4	0
Luce	3	2*
Mackinac	2	1*
Macomb	6	0

Manistee	3	0
Marquette	3	2*
Mason	4	0
Mecosta	4	0
Menominee	2	1*
Midland	4	1
Missaukee	2	0
Monroe	4	0
Montcalm	4	0
Montmorency	4	1
Muskegon	5	0
Newaygo	4	0
Oakland	7	0
Oceana	3	0
Ogemaw	4	0
Ontonagon	2	1*
Osceola	3	0
Oscoda	3	0
Otsego	3	0
Ottawa	5	0
Presque Isle	3	0
Roscommon	3	0
Saginaw	5	0
Sanilac	4	0
Schoolcraft	3	2*
Shiawassee	4	0
St. Clair	4	0
St. Joseph	4	0
Tuscola	4	0
Van Buren	5	1
Washtenaw	4	0
Wayne	8	0
Wexford	3	1

\*While additional plans could be accommodated UPP is the only plan available in this region



STATE OF MICHIGAN

RICK SNYDER  
GOVERNOR

DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

JOHN NIXON  
DIRECTOR

January 25, 2013

The Honorable Jase Bolger  
Speaker of the House  
166 Capitol Building  
P.O. Box 30014  
Lansing, MI 48909-7514

The Honorable Randy Richardville  
Senate Majority Leader  
S-106 Capitol  
P.O. Box 30036  
Lansing, MI 48909-7536

Dear Legislators:

Enclosed is a report on state contracting with businesses owned by qualified disabled veterans submitted pursuant to the reporting requirements in 1984 PA 431, as amended in 2005 and 2008. The report was prepared based on contract data for fiscal year 2012 as recorded in the Michigan Administrative Information Network (MAIN).

If you have questions regarding the information in the report, please contact Genevieve Hayes, Manager, Business Development Unit, at (517) 335-4730.

Sincerely,

John Nixon  
Director

Enclosure

- c: Senator John Moolenaar, Chair, Veterans, Military, and Homeland Security
- Representative Jim Stamas, Chair, Military and Veterans Affairs
- Dick Posthumus, Executive Officer
- Kurt Weiss, DTMB
- Chris Harkins, DTMB
- Greg DeCamp, DTMB
- Senate Fiscal Agency
- House Fiscal Agency



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

JOHN E. NIXON, CPA  
DIRECTOR

January 25, 2013

The Honorable Earl Poleski, Chair  
House Appropriations Subcommittee on General Government  
N-998 House Office Building  
P.O. Box 30014  
Lansing, MI 48909-7514

The Honorable John Pappageorge, Chair  
Senate Appropriations Subcommittee on General Government  
S-2 Capitol Building  
P.O. Box 30036  
Lansing, MI 48909-7536

Dear Legislators:

Enclosed is a summary of the products and services purchased by the department from community rehabilitation organizations and submitted pursuant to the reporting requirements in Section 296 of Public Act 431.

If you have questions regarding the information in the report, please contact David Price, Chairperson of the committee on purchase of goods and services from community rehabilitation organizations, at (517) 484-5588.

Sincerely,

John E. Nixon, CPA  
Director

Enclosure

cc: Senate Fiscal Agency  
House Fiscal Agency  
Dick Posthumus, Executive Office

---

**From:** Bond, Sherry (DTMB)  
**Sent:** Friday, March 15, 2013 5:13 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Summary of the 3/26 F&C agendas for the Budget Director  
**Attachments:** 03 26 2013 - 04 02 2013 fc Agenda summary.docx

Attached is the agenda summary for Mr. Nixon.

Sherry Bond, Secretary State Administrative Board  
2nd Floor Mason Bldg., Pillar S4  
517-335-2559 EMAIL - [bonds@michigan.gov](mailto:bonds@michigan.gov)  
WEBSITE - [www.michigan.gov/adboard](http://www.michigan.gov/adboard)

3/15/2013 1 p.m. DRAFT

## A G E N D A

### FINANCE AND CLAIMS COMMITTEE

March 26, 2013, 11:00 a.m.  
Lake Superior Room  
1<sup>st</sup> Floor, Michigan Library  
and Historical Center

### STATE ADMINISTRATIVE BOARD

April 4, 2013, 11:00 a.m.  
Lake Superior Room  
1<sup>st</sup> Floor, Michigan Library  
and Historical Center

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**This agenda is for general informational purposes only.  
At its discretion the Finance and Claims Committee may revise  
this agenda and may take up other issues at the meeting.**

### SECTION II - AGENCY SUBMITTED - CONTRACT CHANGES

#### 1. DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

1)	Various Hearing Officer- Tax Tribunal (Listing on file)	\$ 49,800.00 Amendment \$ 199,200.00 New Total <b>FY13</b> 100% Restricted Funds <i>Michigan Tax Tribunal Fund</i> Additional funding for Hearing Officer Services, appointed by MAHS for hearing small claim cases and appeals for the Michigan Tax Tribunal
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#### 2. DEPARTMENT OF NATURAL RESOURCES

1)	Home City Ice Cincinnati, OH	\$ 100,000.00 Amendment \$ 418,435.19 New Total <b>FY13</b> 100% Restricted Fund <i>Park Improvement Fund</i> Requesting additional funds for the Ice for Resale Program
2)	The Yaffe Group Southfield, MI	\$ 170,000.00 Amendment \$ 332,318.00 New Total <b>FY13</b> 100% Federal Fund Requesting additional funds to purchase additional Anti-Forest Fire Media Spots

3. DEPARTMENT OF STATE POLICE

1)	Alternations by Rozi Howell, MI	\$ 340,025.24 Amendment \$ 693,025.24 New Total <b>FY13</b> 3.75% Federal Fund 85% General Fund 11.25% Restricted Fund <i>MDOT State Trunkline Fund</i> <i>Motor Carrier Fees</i> Additional funds for a one- year option to the contract for Tailoring Services
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SECTION III - AGENCY SUBMITTED - NEW GRANTS

4. DEPARTMENT OF HUMAN SERVICES

1)	MI Coalition to End Domestic And Sexual Violence Okemos, MI	\$ 780,000.00 Total <b>FY13-15</b> 100% Federal Fund To provide training services and conferences for staff and agencies related to domestic and sexual violence prevention
2)	Spectrum Child & Family Services Westland, MI	\$ 298,374.00 Total <b>FY13</b> 100% General Fund To provide an intensive individualized parent-child visit approach, that centers around the specific needs of the child(ren)
3)	Orchards Children's Services Southfield, MI	\$ 2,500,000.00 Total <b>FY13-15</b> 100% Federal Fund To provide supportive services/solution focused counseling to families that come into contact with Success Coaches housed in elementary schools in the City of Flint, Genesee County, Michigan



4. DEPARTMENT OF HUMAN SERVICES continued

- 4) Orchards Children's Services \$ 2,500,000.00 Total  
Southfield, MI **FY13-15** 100% Federal Fund  
To provide supportive  
services/solution focused  
counseling to families that  
come into contact with Success  
Coaches housed in elementary  
schools in the City of Pontiac,  
Oakland County, Michigan
- 5) Various MACF14-Michigan \$ 4,966,482.00 Total  
AmeriCorps Series **FY13-14** 100% Federal Fund  
(Listing on file) To provide necessary resources  
statewide to address critical  
human needs thru direct  
volunteer participation that  
supports initiatives

5. DEPARTMENT OF NATURAL RESOURCES

- 1) Various Grantees \$ 2,077,700.00 Total  
(Listing on file) **FY13-14** 100% General Fund  
Funding to provide assistance  
with dam removal and management

6. DEPARTMENT OF TREASURY

- 1) Various Grantees \$ 3,151,544.00 Total  
(Listing on file) **FY13-15**  
100% General Obligation Bonds  
S2 Grants for planning and  
design for potential wastewater  
projects

#### SECTION IV - AGENCY SUBMITTED - GRANT CHANGES

##### 7. DEPARTMENT OF COMMUNITY HEALTH

- |    |                                      |                                                                                                                                                                                                                                                                                                                                                                            |
|----|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) | Various Vendors<br>(Listing on file) | \$ 7,869,336.00 Amendment<br>\$265,641,516.00 New Total<br><b>FY13</b> 65% Federal Fund<br>35% General Fund<br>Additional funds for a one-<br>year grant agreement to<br>provide funding for MI Choice<br>Home and Community-Based<br>Services for the elderly and<br>disabled waiver program<br>services as an option to<br>institutionalization in<br>nursing facilities |
|----|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### SECTION V - DTMB SUBMITTED - NEW CONTRACTS

##### 8. DEPARTMENT OF EDUCATION

- |    |                                                                                                          |                                                                                                                                                                                                |
|----|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) | Wisconsin Center for<br>Education Research (WCER),<br>University of Wisconsin-<br>Madison<br>Madison, WI | \$ 6,000,000.00 (3 years)<br><b>FY13-16</b> 100% <b>XXXXXXXXXX</b> Funds<br><b>CONTRACT #</b> Funding for the<br>Statewide English Language<br>Proficiency Assessment<br>Administration System |
|----|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

##### 9. DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET

- |    |                                                |                                                                                                                                                                                          |
|----|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) | PNC Equipment Finance<br>Columbus, OH          | \$ 4,877,259.36 (4 years)<br><b>FY13-17</b> 100% Revolving Fund<br><i>See bid tab for list of funds</i><br>Finance for Lease/Purchase for<br>IT Equipment for DTMB Technical<br>Services |
| 2) | Solutions Thru Software, Inc.<br>Henderson, NV | \$ 4,657,224.18 (5 years)<br><b>FY13-18</b> 100% Federal Fund                                                                                                                            |

071B3200082 Commercial Driver's  
License Automated Testing  
System for Department of State

9. DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET continued

3)	Windsor Solutions, Inc. Portland, OR	\$ 4,884,335.00 (5 years) <b>FY13-18</b> 100% Restricted Fund <i>NPDES Fees, Stormwater Fees, Aquatic Nuisance Fees, Groundwater Fees, Land and Water Mgmt. Permit Fees</i> 071R2200123/071I22000183 MiWater Software Development for the Department of Environmental Quality
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**SECTION VI - DTMB SUBMITTED - CONTRACT CHANGES**

10. DEPARTMENT OF COMMUNITY HEALTH

1)	Life Technologies Corporation Chicago, IL	\$ 600,000.00 Amendment \$ 1,074,027.54 New Total <b>FY13-15</b> 32% Federal Fund 68% Restricted Fund <i>Newborn Screening Fees</i> 071B3200017 Additional funding to add products and increase funding for Laboratory Consumables-Bureau of Laboratories
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11. DEPARTMENT OF CORRECTIONS

1)	Aladdin Temp-Rite, LLC Hendersonville, TN	\$ 0.00 Amendment \$ 409,451.58 New Total 100% General Fund 071B8200044 Six-month extension of the contract for Meal Delivery Insulated Tray System (Server Trays, Covers, and Disposable Dishware)
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2)	Stafford-Smith, Inc. Lansing, MI	\$ 0.00 Amendment \$ 1,300,000.00 New Total 100% General Fund 071B8200017 Six-month extension of the contract for Cambro Foodservice Products
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12. DEPARTMENT OF STATE

1)	Guardian Alarm Company Southfield, MI	\$ 60,000.00 Amendment \$ 194,268.56 New Total <b>FY14</b> 1% General Fund 99% Restricted Fund <i>See Bid Tab for list of funds</i> 071B0200009 Additional Funding to exercise the second option year of the contract for Security/Intrusion Alarm Maintenance and Monitoring Services
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13. DEPARTMENT OF TECHNOLOGY OF MANAGEMENT AND BUDGET

1)	Agile Access Control, Inc. Chantilly, VA	\$ 105,780.00 Amendment \$ 590,005.00 New Total <b>FY13</b> 100% Revolving Fund <i>Motor Transit Fund</i> 071B9200170 Additional funding for a one-year option to the contract for the Motor Pool Management System for the Office of Support Services
2)	Besco Water Treatment, Inc. Battle Creek, MI	\$ 400,000.00 Amendment \$ 1,975,860.32 New Total <b>FY13-14</b> 100% General Fund 071B9200194 Additional funding for an option year for General Salt Statewide - for the Lower Peninsula
3)	Catamaran PBM of Maryland, Incorporated Rockville, MD	\$370,000,000.00 Amendment \$1,761,798,804.00 New Total <b>FY14-15</b> 100% Restricted Fund <i>MPSERS Pension Fund</i>

071B0200095 Additional funding  
to exercise a one-year option  
to the contract for Pharmacy  
Benefit Management Services-  
Office of Retirement Services  
on behalf of MPSERS

13. DEPARTMENT OF TECHNOLOGY OF MANAGEMENT AND BUDGET continued

- |    |                                            |                                                                                                                                                                                                                                                                                                          |
|----|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4) | Oracle America, Inc.<br>Redwood Shores, CA | \$ 10,438,287.00 Amendment<br>\$ 60,236,979.05 New Total<br><b>FY13</b> 100% Revolving Fund<br><i>See bid tab for list of funds</i><br>071B0200245 Additional funds<br>for Oracle Software and Support                                                                                                   |
| 5) | Safeware, Inc.<br>Landover, MD             | \$ 0.00 Amendment<br>\$ 2,863,462.00 New Total<br><i>See bid tab for list of funds</i><br>071B2200059 To add a General<br>Fund funding source for Public<br>Safety and Emergency<br>Preparedness and Related<br>Services (U.S. Communities and<br>Government Purchasing Alliance<br>Contract)- Statewide |
| 6) | VWR International, LLC<br>West Chester, PA | \$ 1,144,000.00 Amendment<br>\$ 5,089,000.00 New Total<br><b>FY13</b> 100% Various Funds<br><i>Varies by Agency</i><br>071B1300087 Additional funds<br>to the Contract for Laboratory<br>Supplies and Equipment-<br>Statewide                                                                            |

13. DEPARTMENT OF TECHNOLOGY OF MANAGEMENT AND BUDGET continued

Various RE:START Vendors

Amendment(s) to existing  
contract(s) for Short-term  
Staff Augmentation for  
Information Technology for  
various departments

7) GDI Infotech, Inc.  
(Ramana Prasad)  
Ann Arbor, MI

NOT TO EXCEED  
\$ 138,880.00 Amendment  
\$ 277,760.00 New Total  
**FY13** 100% Restricted Fund  
*State Trunkline Fund*  
071B2200175 Additional funds  
for a one-year option for a  
Senior Systems Analyst to  
provide the Department of  
Transportation with continued  
support of IT applications  
including MAP Project  
Information System (MPINS),  
Maintenance Management System  
(MMS), and Administrative  
Customizable Reporting System  
(ACRS)

8) Technology Resource Services,  
Inc.  
(Gurinderpal Singh)  
New York, NY

NOT TO EXCEED  
\$ 168,640.00 Amendment  
\$ 505,920.00 New Total  
**FY13** 100% Restricted Fund  
*State Trunkline Fund*  
071B1300225 Additional funds  
for a one-year option to the  
contract for a Senior  
Programmer to provide the  
Department of Transportation

with continued support of IT applications including the Master Grant System (MGS)/ Transportation Economic Development Fund (TEDF)

13. DEPARTMENT OF TECHNOLOGY OF MANAGEMENT AND BUDGET continued

9)	VisanTech Solutions, LC (Suresh Kumar) Haslett, MI	NOT TO EXCEED \$ 166,656.00 Amendment \$ 499,968.00 New Total <b>FY13</b> 32% General Fund 68% Restricted Fund <i>L.O. Auto Acct System CP07</i> 071B1300289 Additional funding for a one-year option for a Senior Applications Software Engineer to provide the Department of Human Services with continued support of the Bureau of Accounting and Financial Management software application Local Accounting System Replacement (LASR)
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14. DEPARTMENT OF TREASURY

1)	Grant Thornton, LLP Southfield, MI	\$ 50,000.00 Amendment \$ 1,000,000.00 New Total <b>FY13</b> 100% Restricted Fund <i>State Services Fee Fund</i> 071B8200291 Additional funding for the contract for Financial Consulting Services, for the Michigan Gaming Control Board
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The Director of the Department of Technology, Management and Budget recommends approval by the State Administrative Board of the items contained in Sections I, II, III, IV, V, and VI of this agenda. Approval by the State Administrative Board of these award

recommendations does not require or constitute the award of same. Award of contracts shall be made at the discretion of the DTMB Director or designee.



OLD	NEW	Specified Changes
<b>Northeast</b> Alcona Iosco Alpena Montmorency Arenac Ogemaw Cheboygan Oscoda Clare Otsego Crawford Presque Isle Gladwin Roscommon	<b>Region 1</b> Alcona Iosco Alpena Montmorency Arenac Ogemaw Cheboygan Oscoda Clare Otsego Crawford Presque Isle Gladwin Roscommon	None
<b>UP-</b> Alger Keweenaw Baraga Luce Chippewa Mackinac Delta Marquette Dickinson Menominee Gogebic Ontonagon Houghton Schoolcraft Iron	<b>Region 2</b> Alger Keweenaw Baraga Luce Chippewa Mackinac Delta Marquette Dickinson Menominee Gogebic Ontonagon Houghton Schoolcraft Iron	None
<b>Kent</b> – Kent and Allegan	<b>Region 3</b> Allegan	Kent County is moved to Region 5 with Barry and Ionia Counties
<b>Berrien-</b> VanBuren, Cass and Berrien	Berrien Cass	Berrien and Kalamazoo areas were combined.
<b>Kalamazoo-</b> Kalamazoo and St. Joseph	Kalamazoo St. Joseph Van Buren	Berrien and Kalamazoo areas were combined.
<b>Northwest</b> Antrim Leelanau Benzie Manistee Charlevoix Missaukee Emmet Wexford Grand Traverse Kalkaska	<b>Region 4</b> Antrim Leelanau Benzie Manistee Charlevoix Missaukee Emmet Wexford Grand Traverse Kalkaska	None
<b>Calhoun-</b> Barry, Calhoun, Branch	<b>Region 5</b> Barry	Calhoun and Branch are moved to Region 7.
<b>West Shoreline-</b> Mason, Lake, Osceola, Newago, Mecosta, Isabella, Montcalm, Gratiot, Ionia	Ionia	Ionia is the only move from West Shoreline.
<b>Kent-</b> Kent and Allegan	Kent	Allegan was moved to Region 3
<b>Saginaw</b> Bay Midland Saginaw	<b>Region 6</b> Bay Midland Saginaw	None
<b>Calhoun-</b> Calhoun, Barry and Branch	<b>Region 7</b> Branch	Barry moved to Region 5
<b>Capital-</b> Clinton, Eaton, Ingham, Jackson, Hillsdale, Lenawee, Monroe	Jackson Calhoun Lenawee Hillsdale Monroe	Capital was expanded this year when Jackson backed out late in the game. The Region 7 “change” makes the Jackson area its own region again with the addition of Branch and Calhoun.
<b>Capital-</b> Clinton, Eaton, Ingham, Jackson, Hillsdale, Lenawee, Monroe	<b>Region 8</b> Clinton Eaton Ingham	Capital was expanded this year when Jackson backed out late in the game. The Region 8 “change” makes the Jackson area its own region again with the addition of Branch and Calhoun.
<b>Flint</b> Genesee and Shiawassee	<b>Region 9</b> Genesee Livingston Shiawassee	At the beginning of FY 2011, Livingston was moved from Washtenaw and added here. Note Livingston was taken on by

		Washtenaw when there was an issue with the Oakland/Livingston Agency. It has been under Washtenaw since. Geographically it fits better in this cluster.
<b>West Shoreline</b> Gratiot      Mecosta    Ionia Isabella    Montcalm Lake        Newaygo Mason      Osceola	<b>Region 10</b> Gratiot      Mecosta Isabella    Montcalm Lake        Newaygo Mason      Osceola	Moved Ionia County to Region 5.
<b>Thumb</b> Huron Lapeer Sanilac St. Clair Tuscola	<b>Region 11</b> Huron Lapeer Sanilac St. Clair Tuscola	None.
<b>Macomb</b> Macomb	<b>Region 12</b> Macomb	None.
<b>Muskegon</b> Muskegon Oceana Ottawa	<b>Region 13</b> Muskegon Oceana Ottawa	None.
<b>Oakland</b> (FOA Run) Oakland	<b>Region 14</b> Oakland	Offered for bid.
<b>Washtenaw</b> Washtenaw and Livingston	<b>Region 15</b> Washtenaw	Moved Livingston to Region 9.
<b>Wayne</b> Wayne	<b>Region 16</b> Wayne	None.

4/19/2013 2:00 p.m. DRAFT

## A G E N D A

### FINANCE AND CLAIMS COMMITTEE

April 30, 2013, 11:00 a.m.

Lake Superior Room

1<sup>st</sup> Floor, Michigan Library  
and Historical Center

### STATE ADMINISTRATIVE BOARD

May 7, 2013, 11:00 a.m.

Lake Superior Room

1<sup>st</sup> Floor, Michigan Library  
and Historical Center

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this agenda and may take up other issues at the meeting.

### SECTION I - AGENCY SUBMITTED - NEW CONTRACTS

#### 1. DEPARTMENT OF EDUCATION

1) left blank intentionally

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### SECTION II - AGENCY SUBMITTED - CONTRACT CHANGES

#### 2. DEPARTMENT OF CORRECTIONS

1) Hood Flexible Packaging  
Montreal, QC, Canada

\$ 45,000.00 Total  
\$ 986,390.00 New Total  
**FY14** 100% Revolving Fund  
*Correctional Industries Revolving Fund*  
Seven-month, two-week extension  
and additional funding to  
continue purchasing film for  
milk and juice pouches for MSI

### SECTION III - AGENCY SUBMITTED - NEW GRANTS

#### 3. DEPARTMENT OF ENVIRONMENTAL QUALITY

- |    |                                       |                                                                                                                                                                                                 |
|----|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) | Various Grantees<br>(Listing on file) | \$ 811,879.00 Total<br><b>FY13-17</b> 100% Restricted Fund<br><i>Clean Michigan Initiative Bond Funds</i><br>To implement Watershed<br>Management Plans to protect and<br>improve water quality |
| 2) | Various Grantees<br>(Listing on file) | \$ 1,351,805.00 Total<br><b>FY13-17</b> 100% Federal Fund<br>To develop and implement<br>Watershed Management Plans to<br>protect and improve water<br>quality                                  |

#### 4. DEPARTMENT OF HUMAN SERVICES

- |    |                                                     |                                                                                                                                                                                                                                                                          |
|----|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) | Various DOE12-Series<br>(Listing on file)           | \$ 33,000,000.00 Total<br><b>FY13-15</b> 100% Federal Fund<br>To weatherize various low<br>income homes in various<br>counties throughout the state                                                                                                                      |
| 2) | Various CSBG14-Series<br>(Listing on file)          | \$ 82,370,022.00 Total<br><b>FY14-16</b> 100% Federal Fund<br>To provide various services to<br>low income individuals and<br>families in various counties in<br>the state                                                                                               |
| 3) | Spectrum Child & Family<br>Services<br>Westland, MI | \$ 625,000.00 Total<br><b>FY13-15</b> 100% Federal Fund<br>To provide supportive<br>services/solution focused<br>counseling to families that<br>come into contact with Success<br>Coaches housed in the<br>elementary schools in the City<br>of Flint, County of Genesee |

4. DEPARTMENT OF HUMAN SERVICES continued

4)	Spectrum Child & Family Services Westland, MI	\$ 625,000.00 Total <b>FY13-15</b> 100% Federal Fund To provide supportive services/solution focused counseling to families that come into contact with Success Coaches housed in the elementary schools in the City of Pontiac, County of Oakland
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SECTION IV - AGENCY SUBMITTED - GRANT CHANGES

5. DEPARTMENT OF COMMUNITY HEALTH

1)	Michigan Public Health Institute Okemos, MI	\$ 3,557,773.00 Amendment \$ 56,286,891.00 New Total <b>FY13</b> 89.10% Federal Fund 6.72% General Fund 3.28% Restricted Fund <i>Michigan Health Initiative Fund</i> <i>Healthy Michigan Fund</i> .83% Private Funds .07% Local Fees Additional funds for various Community Health Projects
2)	Southeastern Michigan Health Association (SEMHA) Detroit, MI	\$ 404,598.00 Amendment \$ 16,852,295.00 New Total <b>FY13</b> 81.63% Federal Fund 4.11% General Fund 10.49% Restricted Fund <i>Michigan Health Initiative Fund</i> 3.77% Private Funds Additional funds for various Community Health Projects

5. DEPARTMENT OF COMMUNITY HEALTH continued

3)	Various Grantees (Listing on file)	\$ 2,258,634.00 Amendment \$121,992,281.00 New Total <b>FY13</b> 61.03% Federal Fund 36.50% General Fund 2.44% Restricted Fund <i>Michigan Health Initiative Fund</i> <i>Healthy Michigan Fund</i> .03% Private Funds Additional funds for a joint & cooperative agency relationship & basis for facilitating health service delivery
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6. DEPARTMENT OF ENVIRONMENTAL QUALITY

1)	United State Department of Interior, U. S. Geological Survey, Water Resources Division Lansing, MI	\$ 255,750.00 Amendment \$ 1,107,150.00 New Total <b>FY1314</b> 100% Restricted Fund <i>Clean Michigan Initiative Funds</i> To provide for the collection of ambient water samples within 31 Michigan Great Lakes tributary watersheds in support of the Water Chemistry Monitoring Project (WCMP)
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7. DEPARTMENT OF HUMAN SERVICES

1)	County of Wayne Lansing, MI	\$ 402,500.00 Amendment \$ 2,787,500.00 New Total <b>FY13</b> 100% Federal Fund TANF funds to extend services to prevent at-risk youth from being removed from the home and placed in out-of-home care facilities and other living arrangements to reduce abuse and neglect and forced on providing parents and youth with the knowledge and methods
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to improve the quality of life  
at home and reduce juvenile  
delinquency

8. DEPARTMENT OF TREASURY/MICHIGAN STRATEGIC FUND

- 1) Statewide Workforce \$ 3,795,025.00 Amendment  
Development Boards \$ 99,175,364.00 New Total  
(Listing on file) **FY13** 100% Federal Funds  
Workforce Investment Act Funds  
To provide core, intensive, and  
training services through the  
one-stop systems to adult and  
dislocated worker participants  
and to increase the focus on  
longer-term academic and  
occupational learning  
opportunities

**SECTION V - DTMB SUBMITTED - NEW CONTRACTS**

9. DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET

- 1) left blank intentionally
- 2) Wheels, Inc. \$315,268,910.00 (5 yrs, 5mos)  
Des Plaines, IL **FY13-18** 100% Restricted Fund  
*Motor Transport Internal  
Service Fund*  
071I3200001 Fleet Management  
Services

10. DEPARTMENT OF TRANSPORTATION

- 1) Gibraltar Cable Barrier \$ 5,789,570.00 (3 years)  
Systems, LP **FY13-16** 100% Restricted Fund  
Marble Falls, TX *State Trunkline Funds*  
071I3200027 Gibraltar Cable  
Barrier System Spare Parts
- 2) Viking-Cives Midwest, Inc. \$ 1,000,000.00 (3 years)  
Morley, MO **FY13-16** 100% Restricted Fund  
*State Trunkline Fund*

**SECTION VI - DTMB SUBMITTED - CONTRACT CHANGES**

11. DEPARTMENT OF COMMUNITY HEALTH

1)	Michigan Public Health Institute Okemos, MI	\$ 96,885.00 Amendment \$ 2,453,782.00 New Total <b>FY13-14</b> 50% Federal Fund 50% General Fund 071B8200186 Additional funding for a 4-month extension to the contract for Statewide Review of the Home Help Program
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12. DEPARTMENT OF TECHNOLOGY, MANAGEMENT, AND BUDGET

1)	Cellco Partnership/ DBA Verizon Wireless Chicago, IL	\$ 12,000,000.00 Amendment \$ 20,500,000.00 New Total <b>FY13</b> 100% Revolving Fund <i>Telecom</i> 071B8200194 Additional funding for the contract for Telecom for the Department of Technology, Management and Budget - Statewide
2)	Compuware Corporation Detroit, MI	\$ 2,000,000.00 Amendment \$ 7,000,000.00 New Total <b>FY13-14</b> 100% Revolving Fund <i>Varies by agency</i> 071B1300069 Additional funding for Compuware Vantage Products and Services
3)	First Data Government Solutions, LP Cincinnati, OH	\$ 173,450.70 Amendment \$ 1,500,000.00 New Total <b>FY13-15</b> 34% General Fund 66% Federal Fund 071B1300070 Additional funding for DTMB/MiCSES IVR Software Maintenance and Application



Enhancements on behalf of  
Department of Human Services

12. DEPARTMENT OF TECHNOLOGY, MANAGEMENT, AND BUDGET continued

- |    |                                          |                                                                                                                                                                                                                                                                                        |
|----|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4) | Lansing Sanitary Supply<br>Lansing, MI   | \$ 200,000.00 Amendment<br>\$ 575,000.00 New Total<br><b>FY13-14</b> 100% General Fund<br>071B0200257 Additional funding<br>to exercise a one-year option<br>to the contract for Green<br>Janitorial Supplies                                                                          |
| 5) | Neighborhood America, Inc.<br>Naples, FL | \$ 683,600.00 Amendment<br>\$ 2,183,600.00 New Total<br><b>FY13-14</b> 100% General Funds<br>071B0200221 Additional funding<br>for a one-year option to the<br>contract for Statewide Social<br>Networking Services on behalf<br>of the Department of Military<br>and Veterans Affairs |
| 6) | USA Mobility<br>Woburn, MA               | \$ 0.00 Amendment<br>\$ 700,000.00 New Total<br>071B8200142 Request for a six-<br>month extension to the<br>Statewide contract for Pager<br>Services for DTMB Telecom                                                                                                                  |

12. DEPARTMENT OF TECHNOLOGY, MANAGEMENT, AND BUDGET continued

**Various RE:START Vendors**

**Amendment(s) to existing  
contract(s) for Short-term  
Staff Augmentation for  
Information Technology for  
various departments**

7) Compuware Corporation  
(David Martin)  
Lansing, MI

NOT TO EXCEED  
\$ 168,640.00 Amendment  
\$ 337,280.00 New Total  
**FY13** 100% Federal Fund  
071B2200195 Additional funding  
for a one-year option to the  
contract for a Senior  
Programmer to provide the  
Michigan Economic Development  
Corporations/Workforce  
Development Agency with  
Continued support of the  
MiTalent project

8) Magna Systems International  
(Surajit Paul)  
Southfield, MI

NOT TO EXCEED  
\$ 168,640.00 Amendment  
\$ 337,280.00 New Total  
**FY13** 100% Federal Fund  
071B2200192 Additional funding  
for a one-year option to the  
contract for a Senior  
Programmer to provide the  
Michigan Economic Development  
Corporation/Workforce  
Development Agency (MEDC/WDA)  
with Continued support of the  
MiTalent project

12. DEPARTMENT OF TECHNOLOGY, MANAGEMENT, AND BUDGET continued

- |     |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                               |
|-----|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9)  | PEER Solutions Group, Inc.<br>(Mohamed Peeran)<br>West Bloomfield, MI              | NOT TO EXCEED<br>\$ 188,480.00 Amendment<br>\$ 565,440.00 New Total<br><b>FY13</b> 100% Federal Fund<br>071B1300227 Additional funding<br>for a one-year option to the<br>contract for a Project Manager<br>to provide the Department of<br>Education with continued<br>support of the Michigan Profile<br>for Healthy Youth (MIPHY)                                          |
| 10) | Ramsoft Systems, Incorporated<br>(Mahesh Vasudevan)<br>Southfield, MI              | NOT TO EXCEED<br>\$ 152,768.00 Amendment<br>\$ 305,536.00 New Total<br><b>FY13</b> 100% Federal Fund<br>071B2200187 Additional funding<br>for a one-year option to the<br>contract for a Senior<br>Programmer to provide the<br>Michigan Economic Development<br>Corporations/Workforce<br>Development Agency (MECD/WDA)<br>with Continued support of the<br>MiTalent project |
| 11) | Smart Source Technologies,<br>Inc.<br>(Yousef Almed Mellem)<br>North Brunswick, NJ | NOT TO EXCEED<br>\$ 163,880.00 Amendment<br>\$ 332,520.00 New Total<br><b>FY13</b> 100% General Fund<br>071B2200110 <b>Retroactive</b><br>Additional funding for a one-<br>year option to the contract for<br>a Senior Programmer Analyst to<br>provide the Department of                                                                                                     |

Corrections with continued support of ongoing application development/maintenance in the PowerBuilder environment, migration of Corrections Management Information System (CMIS) and other application development

RICK SNYDER  
GOVERNOR



STATE OF MICHIGAN  
CIVIL SERVICE COMMISSION

COMMISSIONERS  
THOMAS M. WARDROP, CHAIR  
JAMES BARRETT  
JANET MCCLELLAND  
ROBERT W. SWANSON  
  
ACTING STATE PERSONNEL  
DIRECTOR  
MATT FEDORCHUK

January 29, 2015

The Honorable Dave Hildenbrand, Chair  
Senate Appropriations Committee  
State Capitol Building, Room S-324  
Lansing, Michigan 48909

The Honorable Al Pscholka, Chair  
House Appropriations Committee  
State Capitol Building, Room H-351  
Lansing, Michigan 48909

Ms. Ellen Jeffries, Director  
Senate Fiscal Agency  
201 N. Washington Square, Suite 800  
Lansing, Michigan 48909

Ms. Mary Ann Cleary, Director  
House Fiscal Agency  
124 North Capitol Avenue, Suite 400  
Lansing, Michigan 48909

Dear Senator Hildenbrand, Representative Pscholka, Ms. Jeffries and Ms. Cleary:

Each year, as required by Public Act 504 of 1988, the Civil Service Commission reports to you regarding all contractual personal services obtained by state agencies during the previous fiscal year. Enclosed you will find the report for Fiscal Year 2014.

Most of the information in the report was gathered from purchasing records in the Michigan Information Database (MIDB). Three agencies (Human Services, Michigan State Housing Development Authority, and Lottery) that do not use all the features of the Advanced Purchasing and Inventory Control System (ADPICS) supplied supplemental data to us that was not available in MIDB. The Office of the Auditor General had no reportable expenditures for FY 2014.

The report contains a summary of the contractual personal services activity and five sections of detailed information, as described below. Expenditures for incidental services of \$1,000 or less per vendor are not included in the report.

**Overview Summary by Department.** This section summarizes the information in the detailed sections of the report. The table reports, by department and agency, the number of contractual services requests (CS-138s) approved, the amounts reported spent for the services of independent contractors (IC), the payroll for special personal services employees (SPS), and the combined total of IC and SPS expenditures for the fiscal year.

**Section A CS-138s Processed and Effective During Fiscal Year 2014.** This section reports the type of service, vendor name, funding source, amount requested for each IC CS-138, and the amounts reported as paid according to the MIDB. Preauthorizations based on service type that were approved in Fiscal Year 2014 are also reported here.

**Section B CS-138s Approved in Previous Fiscal Years that Remained in Effect During Fiscal Year 2014.** This section reports on requests that were processed during prior fiscal years and which had money expended during Fiscal Year 2014. Preauthorizations based on service type that were initiated in prior fiscal years are also reported here.

**Section C Preauthorized Services Less Than or Equal to \$5000.** This section reports contractual agreements entered into under pre-approval by Civil Service based on the amount expended.

**Section D Special Personal Services Payroll.** This report summarizes payroll expenditures for SPS employees during the fiscal year. SPS employees are contractors who do not meet the Internal Revenue Service criteria for independent contractor status.

**Section E Multiple Vendor Listing.** This report identifies vendors in instances where more than one vendor provided services for an individual CS-138. The corresponding CS-138s appear in Section A, B or C of the report. Most data was obtained through MIDB; however, some lists were prepared by those agencies using mechanisms other than ADPICS to generate payment.

In addition to the information described above, Public Act 504 also requires that we report on the number of CS-138 approvals that resulted in the displacement of classified employees. No employees were displaced as a result of CS-138s approved during Fiscal Year 2014.

Questions regarding the contractual personal services process should be addressed to my attention at (517) 241-7243 or [GallagherC@michigan.gov](mailto:GallagherC@michigan.gov).

Sincerely,

A handwritten signature in black ink that reads "Carla Gallagher". The signature is written in a cursive, flowing style.

Carla Gallagher, Director  
Personal Services Review

cc: Joe Carrasco, Senate Fiscal Agency  
Robin Risko, House Fiscal Agency  
Matt Fedorchuk, Acting Director, Civil Service

---

**From:** Sanches, Christine (DHS)  
**Sent:** Wednesday, September 30, 2015 4:57 PM  
**To:** Brownlee, Jeff (DTMB)  
**Cc:** Maynard, Sharon (DTMB);Cook, Rebecca (DTMB);Fortino, Diane (DTMB);Stephen, Kimberly (DCH);Kangas, Susan (DHS);Smith, Terri (DHS)  
**Subject:** URGENT REQUEST - - WATER FILTERS  
**Attachments:** Flint Water Filter - Public Advisory.pdf  
  
**Importance:** High

Jeff,

DHHS has an emergent need to procure up to 25,000 water filters to provide to DHHS clients who are currently using the city of flint water system. I intend on sending a purchase request through iTRAC, but wanted to know how quickly your office could procure them. Director Lyon is meeting with Governor Snyder tomorrow to discuss the topic. If you could give me an idea of how many you could procure and how soon, that would be great. If the two DHHS offices in Flint could obtain an initial shipment in the next day or two, that information can be shared with the Director and the Governor's Office .

Attached is the Public Health Advisory that was issued. Page 2 indicates the specs for the filters.

Please Advise as to how quickly these filters could be procured and in what timeframe.

State data confirms higher blood-lead levels in Flint kids

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<http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/state-data-flint-lead/72820798/>

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<http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/shortfalls-em-law-writ-large-flint-water-crisis/72811990/>

Thanks,

Chris

Christine H. Sanches  
Director, Office of Contracts & Purchasing  
Michigan Department of Health & Human Services  
Suite 1201  
235 S. Grand Ave.  
Lansing, MI 48933  
[sanchesc@michigan.gov](mailto:sanchesc@michigan.gov)  
517-335-1161 desk  
517-614-9948 cell



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# Genesee County Board of Commissioners

1101 BEACH STREET, ROOM 312 FLINT, MICHIGAN 48502

TELEPHONE: (810) 257-3020

FAX: (810) 257-3008

September 29, 2015

## Public Health Advisory for People Using the Flint City Water Supply with the Flint River as the Source

Lead is a powerful neurotoxin, which means exposure to lead can damage the brain. It can also injure other soft tissues and organs; interfere with the formation of blood, and exposure to enough lead can be fatal. Both children and adults are vulnerable to leads health effects.

COMMISSIONERS:

BRYANT NOLDEN

BRENDA CLACK

JAMIE W. CURTIS

JOHN NORTHRUP

MARK YOUNG

TONY BROWN

MICHAEL LYNCH

### Common Health Effects on Children:

- Brain damage resulting in IQ loss, learning disabilities, hyperactivity, inability to concentrate, and/or behavior problems
- Stunted growth
- Hearing problems

### Common Health Effects on Adults:

- Hypertension
- Anemia
- Reduced sperm count
- Increased risk of miscarriages

Young children are most vulnerable to leads effects because prior to age six, their brain and central nervous system are still forming and easily susceptible to damage. For an adult to suffer significant health effects, exposure to lead would have to be sustained and more intense. Most adults who are affected by lead have been exposed in an occupational setting, such as working as a house painter or in a battery recycling plant.

Pregnant women are at special risk because the lead they absorb crosses the placenta and enters the fetus.

It's important to remember that there is no known safe level of lead in a human body. Experts now use a reference level of 5 micrograms per deciliter to identify children with blood lead levels that are much higher than most children's levels. This new level is based on the U.S. population of children ages 1-5 years who are in the highest 2.5% of children when tested for lead in their blood.



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Lead in water can contribute to a child's blood lead level. The Michigan Department of Environmental Quality, which regulates municipal water supplies, has assured us that the water leaving the Flint Water Plant meets all Federal and state requirements. The City of Flint has a documented problem with lead in its drinking water due to service and household lines that may contain lead or lead solder which can leach lead because of the corrosivity of the water since changing to the Flint River as the source supply. Generally, those who are most vulnerable to lead's health effects from exposure to unfiltered tap water are the very youngest children. For this reason, if you are not sure about the lead content in your tap water, it's best to either use a filter that has been found to be effective for reducing or eliminating lead, or to use bottled water instead. Water filters should be National Sanitation Foundation (NSF) certified to remove lead and meet ANSI standard 53. If these options are not available to you, then it's best to let the water run for at least five minutes before using it for either drinking or cooking purposes. Always use cold water instead of hot water for drinking and cooking.

It's best to avoid using tap water for mixing infant formula unless you can assure your water is lead free.

**Other Exposure:**

When leaded gasoline was in widespread use in this country, the lead came out the tail pipe and was deposited in yards near the roads. That lead may still be in those yards. In addition, lead paint continues to be a major source of childhood lead poisoning and can be found in homes built before 1978 when lead paint was banned in the U.S. and may be a hazard inside and outside the home especially where paint is worn or flaking.

There are many other potential sources of lead exposure, including:

- "Home remedies" and cosmetics imported from other countries
- Tamarind or chili-based candies from Mexico
- Stained glass windows
- Fishing sinkers
- Firing ranges
- Old, deteriorated mini-blinds
- Bean pots and painted ceramics
- Crystal decanters
- Lead crystal glassware

Since no safe level has been identified it is in everyone's interest to reduce exposure to lead as much as possible. Recommendations on ways to reduce lead exposure can be found on the Genesee County Health Department website [www.gchd.us](http://www.gchd.us) and Center for Disease Control and Prevention website.

Recent data provided by Hurley Hospital researchers has indicated that a significant increase in blood lead levels has occurred in children since the switch to Flint River water. The county Health Officer has requested that the Michigan Department of Health and Human Services (MDHHS) provide to the County specific data to support its claim that state data is more comprehensive and does not show a significant increase. To date, the MDHHS has failed to confirm the geographic area included in their findings. We want to assure the state data is specific to the boundaries of the City of Flint, and not Flint addresses which would include addresses in areas outside of the City of Flint. These areas, such as Flint Township, that obtain their water from the Detroit Water Authority and would, therefore, not be representative of Flint River water as the water source. The County is prepared to take further action if the State fails to provide the requested data by September 30, 2015. Further action could include a request for outside independent evaluation of the data and to declare a Public Health Emergency in Flint.

COUNTY OF GENESEE

BY: 

Date: 9-29-15

Jamie Curtis, Chairperson  
Board of Commissioners

GENESEE COUNTY HEALTH DEPARTMENT

BY: 

Date: 9-29-15

Mark Valacak, M.P.H.  
Health Officer

---

**From:** Sanches, Christine (DHS)  
**Sent:** Wednesday, September 30, 2015 5:26 PM  
**To:** Brownlee, Jeff (DTMB)  
**Cc:** Maynard, Sharon (DTMB);Cook, Rebecca (DTMB);Fortino, Diane (DTMB);Stephen, Kimberly (DCH);Kangas, Susan (DHS);Smith, Terri (DHS)  
**Subject:** RE: URGENT REQUEST - - WATER FILTERS

Here is a list of vendors registered in Buy4Michigan under the commodity code 890-78 Water Supply, Water Filters and Filter elements:

Select	Vendor ID	Vendor Name	Last PO Date	Last Bid D
<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/>	<a href="#">16693</a>	AECOM of Michigan, PC		
<input checked="" type="checkbox"/>	<a href="#">17183</a>	Agathos Laboratories, Inc		
<input checked="" type="checkbox"/>	<a href="#">10844</a>	Besco Water Treatment, Inc.		
<input checked="" type="checkbox"/>	<a href="#">14194</a>	Carbon Activated Corporation		
<input checked="" type="checkbox"/>	<a href="#">00023126</a>	Cleanwater Distributors LLC		
<input checked="" type="checkbox"/>	<a href="#">19095</a>	Climate Neutral Inc		
<input checked="" type="checkbox"/>	<a href="#">10697</a>	Controls Supply Company		
<input checked="" type="checkbox"/>	<a href="#">13174</a>	Detroit Boiler Company		
<input checked="" type="checkbox"/>	<a href="#">17673</a>	DuBois-Cooper Associates, Inc		
<input checked="" type="checkbox"/>	<a href="#">14491</a>	ED BIRKMEIER WELL DRILLING, LTD		
<input checked="" type="checkbox"/>	<a href="#">16438</a>	ELGA Labwater LLC		
<input checked="" type="checkbox"/>	<a href="#">10992</a>	Enerco Corporation		
<input checked="" type="checkbox"/>	<a href="#">10919</a>	Enviroidnet		
<input checked="" type="checkbox"/>	<a href="#">10482</a>	Filter Engineering Corporation		
<input checked="" type="checkbox"/>	<a href="#">11456</a>	H-O-H Water Technology, Inc.		
<input checked="" type="checkbox"/>	<a href="#">10578</a>	H2O in Motion, Inc.		
<input checked="" type="checkbox"/>	<a href="#">00029074</a>	Hesco		
<input checked="" type="checkbox"/>	<a href="#">19416</a>	Hesco Industrial		
<input checked="" type="checkbox"/>	<a href="#">10293</a>	Midwest Air Filter, Inc.		
<input checked="" type="checkbox"/>	<a href="#">00022089</a>	Millennium Filters LLC		
<input checked="" type="checkbox"/>	<a href="#">10469</a>	Niswander Environmental, LLC		
<input checked="" type="checkbox"/>	<a href="#">19395</a>	Peterson and Matz, Inc		
<input checked="" type="checkbox"/>	<a href="#">12381</a>	Petler Investments, Inc. /dab River Environmental		
<input checked="" type="checkbox"/>	<a href="#">12326</a>	ProAct Services Corporation		
<input checked="" type="checkbox"/>	<a href="#">15178</a>	Prominent Systems Inc.		

---

**From:** Sanches, Christine (DHS)  
**Sent:** Wednesday, September 30, 2015 5:22 PM  
**To:** Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Cc:** Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DCH) <STEPHENK@michigan.gov>; Kangas, Susan (DHS) <KangasS1@michigan.gov>; Smith, Terri (DHS) <SmithT42@michigan.gov>  
**Subject:** RE: URGENT REQUEST - - WATER FILTERS

Here is a list of manufacturers of the filters.

## NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, September 30, 2015** at 12:15 a.m. Eastern Time. Please [contact NSF International](#) to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:

<http://info.nsf.org/Certified/DWTU/Listings.asp?ProductType=Faucet+Mount&hdModlStd=ModlStd&>

Note: Certain claims, such as Arsenic (Pentavalent) Reduction, appear as active links, allowing you to access additional information regarding the specific contaminants.

<http://info.nsf.org/Certified/dwtu/Listings.asp?TradeName=&Standard=&ProductType=Faucet+Mount&PlantState=&PlantCountry=&PlantRegion=&submit3=SEARCH&hdModlStd=ModlStd>

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, September 30, 2015 5:07 PM  
**To:** Sanches, Christine (DHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DCH) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>  
**Subject:** Re: URGENT REQUEST - - WATER FILTERS

Let's work together on this. Who are potential suppliers? Sharon, do we have existing suppliers/contracts?

Sent from my iPhone

On Sep 30, 2015, at 4:57 PM, Sanches, Christine (DHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:



Jeff,

DHHS has an emergent need to procure up to 25,000 water filters to provide to DHHS clients who are currently using the city of Flint water system. I intend on sending a purchase request through iTRAC, but wanted to know how quickly your office could procure them. Director Lyon is meeting with Governor Snyder tomorrow to discuss the topic. If you could give me an idea of how many you could procure and how soon, that would be great. If the two DHHS offices in Flint could obtain an initial shipment in the next day or two, that information can be shared with the Director and the Governor's Office.

Attached is the Public Health Advisory that was issued. Page 2 indicates the specs for the filters.

Please Advise as to how quickly these filters could be procured and in what timeframe.

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Detroit Free Press – September 27, 2015, By Kristi Tanner and Nancy Kaffer

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<http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/shortfalls-em-law-writ-large-flint-water-crisis/72811990/>

Thanks,

Chris

Christine H. Sanches

Director, Office of Contracts & Purchasing

Michigan Department of Health & Human Services

Suite 1201

235 S. Grand Ave.

Lansing, MI 48933

[sanchesc@michigan.gov](mailto:sanchesc@michigan.gov)

517-335-1161 desk

517-614-9948 cell

<image002.jpg>

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<Flint Water Filter - Public Advisory.pdf>

---

**From:** Kangas, Susan (DHS)  
**Sent:** Wednesday, September 30, 2015 5:26 PM  
**To:** Sanches, Christine (DHS); Brownlee, Jeff (DTMB); Hanley, Farah (DCH)  
**Cc:** Maynard, Sharon (DTMB); Cook, Rebecca (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DCH); Smith, Terri (DHS)  
**Subject:** RE: URGENT REQUEST - - WATER FILTERS

I'm copying Farah Hanley, MDHHS Financial Operations Administration Deputy so that she'll be in our email chain and up-to-speed on this issue as plans develop.

Susan Kangas, Director  
Bureau of Budget  
Michigan Department of Health and Human Services  
517-373-7787

---

**From:** Sanches, Christine (DHS)  
**Sent:** Wednesday, September 30, 2015 4:57 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DCH) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>  
**Subject:** URGENT REQUEST - - WATER FILTERS  
**Importance:** High

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<http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/shortfalls-em-law-writ-large-flint-water-crisis/72811990/>

Thanks,

Chris

Christine H. Sanches  
Director, Office of Contracts & Purchasing  
Michigan Department of Health & Human Services  
Suite 1201  
235 S. Grand Ave.  
Lansing, MI 48933  
[sanchesc@michigan.gov](mailto:sanchesc@michigan.gov)  
517-335-1161 desk  
517-614-9948 cell



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**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, September 30, 2015 6:21 PM  
**To:** Brownlee, Jeff (DTMB); Sanches, Christine (DHS)  
**Cc:** Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DCH); Kangas, Susan (DHS); Smith, Terri (DHS); Rigg, Steve (DTMB); Hanley, Farah (DCH)  
**Subject:** RE: URGENT REQUEST - - WATER FILTERS  
**Attachments:** Flint Water Filter - Public Advisory.pdf

All

I just spoke with our rep for the Grainger contract. We reviewed the specs, quantity and timeframe. He is activating his executive leadership now, and they will be working with vendors tomorrow morning to determine whether Grainger can fulfill this. I will receive a status update call by 10 am.

I may be receiving emails tonight and tomorrow morning with vendor questions. Who in DCH should be my lead contact to seek answers, or do you prefer I email them to the group?

A couple of questions now:

- Just to clarify, DHHS seeks a filter that fits on a residential kitchen faucet, and meets the specs in the attachment?
- How many filters are needed in an initial shipment?
- If Grainger can supply these, they may have to pull from various manufacturers that meet the specifications listed. Please confirm it is acceptable that DHHS may not receive 25,000 of precisely the same item.

Please contact me and buyer Steve Rigg with any questions.

Thank you.

Rebecca Cook

Cell 517-930-4015

517-284-7008

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, September 30, 2015 5:07 PM  
**To:** Sanches, Christine (DHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DCH) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>  
**Subject:** Re: URGENT REQUEST - - WATER FILTERS

Let's work together on this. Who are potential suppliers? Sharon, do we have existing suppliers/contracts?

Sent from my iPhone

On Sep 30, 2015, at 4:57 PM, Sanches, Christine (DHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Jeff,

DHHS has an emergent need to procure up to 25,000 water filters to provide to DHHS clients who are currently using the city of flint water system. I intend on sending a purchase request through iTRAC, but wanted to know how quickly your office could procure them. Director Lyon is meeting with

Governor Snyder tomorrow to discuss the topic. If you could give me an idea of how many you could procure and how soon, that would be great. If the two DHHS offices in Flint could obtain an initial shipment in the next day or two, that information can be shared with the Director and the Governor's Office .

Attached is the Public Health Advisory that was issued. Page 2 indicates the specs for the filters.

Please Advise as to how quickly these filters could be procured and in what timeframe.

State data confirms higher blood-lead levels in Flint kids

Detroit Free Press – September 27, 2015, By Kristi Tanner and Nancy Kaffer

<http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/state-data-flint-lead/72820798/>

---

Snyder must act on Flint lead crisis

Detroit Free Press – September 27, 2015, By Nancy Kaffer

<http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/shortfalls-em-law-writ-large-flint-water-crisis/72811990/>

Thanks,

Chris

Christine H. Sanches

Director, Office of Contracts & Purchasing

Michigan Department of Health & Human Services

Suite 1201

235 S. Grand Ave.

Lansing, MI 48933

[sanchesc@michigan.gov](mailto:sanchesc@michigan.gov)

517-335-1161 desk

517-614-9948 cell

<image002.jpg>

**CONFIDENTIALITY NOTICE:**

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<Flint Water Filter - Public Advisory.pdf>



# Genesee County Board of Commissioners

1101 BEACH STREET, ROOM 312 FLINT, MICHIGAN 48502

TELEPHONE: (810) 257-3020

FAX: (810) 257-3008

September 29, 2015

## Public Health Advisory for People Using the Flint City Water Supply with the Flint River as the Source

Lead is a powerful neurotoxin, which means exposure to lead can damage the brain. It can also injure other soft tissues and organs; interfere with the formation of blood, and exposure to enough lead can be fatal. Both children and adults are vulnerable to lead's health effects.

COMMISSIONERS:

BRYANT NOLDEN

BRENDA CLACK

JAMIE W. CURTIS

JOHN NORTHRUP

MARK YOUNG

TONY BROWN

MICHAEL LYNCH

### Common Health Effects on Children:

- Brain damage resulting in IQ loss, learning disabilities, hyperactivity, inability to concentrate, and/or behavior problems
- Stunted growth
- Hearing problems

### Common Health Effects on Adults:

- Hypertension
- Anemia
- Reduced sperm count
- Increased risk of miscarriages

Young children are most vulnerable to lead's effects because prior to age six, their brain and central nervous system are still forming and easily susceptible to damage. For an adult to suffer significant health effects, exposure to lead would have to be sustained and more intense. Most adults who are affected by lead have been exposed in an occupational setting, such as working as a house painter or in a battery recycling plant.

Pregnant women are at special risk because the lead they absorb crosses the placenta and enters the fetus.

It's important to remember that there is no known safe level of lead in a human body. Experts now use a reference level of 5 micrograms per deciliter to identify children with blood lead levels that are much higher than most children's levels. This new level is based on the U.S. population of children ages 1-5 years who are in the highest 2.5% of children when tested for lead in their blood.



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COMMISSIONERS:

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It's important to remember that there is no known safe level of lead in a human body. Experts now use a reference level of 5 micrograms per deciliter to identify children with blood lead levels that are much higher than most children's levels. This new level is based on the U.S. population of children ages 1-5 years who are in the highest 2.5% of children when tested for lead in their blood.



Lead in water can contribute to a child's blood lead level. The Michigan Department of Environmental Quality, which regulates municipal water supplies, has assured us that the water leaving the Flint Water Plant meets all Federal and state requirements. The City of Flint has a documented problem with lead in its drinking water due to service and household lines that may contain lead or lead solder which can leach lead because of the corrosivity of the water since changing to the Flint River as the source supply. Generally, those who are most vulnerable to lead's health effects from exposure to unfiltered tap water are the very youngest children. For this reason, if you are not sure about the lead content in your tap water, it's best to either use a filter that has been found to be effective for reducing or eliminating lead, or to use bottled water instead. Water filters should be National Sanitation Foundation (NSF) certified to remove lead and meet ANSI standard 53. If these options are not available to you, then it's best to let the water run for at least five minutes before using it for either drinking or cooking purposes. Always use cold water instead of hot water for drinking and cooking.

It's best to avoid using tap water for mixing infant formula unless you can assure your water is lead free.

**Other Exposure:**

When leaded gasoline was in widespread use in this country, the lead came out the tail pipe and was deposited in yards near the roads. That lead may still be in those yards. In addition, lead paint continues to be a major source of childhood lead poisoning and can be found in homes built before 1978 when lead paint was banned in the U.S. and may be a hazard inside and outside the home especially where paint is worn or flaking.

There are many other potential sources of lead exposure, including:

- "Home remedies" and cosmetics imported from other countries
- Tamarind or chili-based candies from Mexico
- Stained glass windows
- Fishing sinkers
- Firing ranges
- Old, deteriorated mini-blinds
- Bean pots and painted ceramics
- Crystal decanters
- Lead crystal glassware

Since no safe level has been identified it is in everyone's interest to reduce exposure to lead as much as possible. Recommendations on ways to reduce lead exposure can be found on the Genesee County Health Department website [www.gchd.us](http://www.gchd.us) and Center for Disease Control and Prevention website.

Recent data provided by Hurley Hospital researchers has indicated that a significant increase in blood lead levels has occurred in children since the switch to Flint River water. The county Health Officer has requested that the Michigan Department of Health and Human Services (MDHHS) provide to the County specific data to support its claim that state data is more comprehensive and does not show a significant increase. To date, the MDHHS has failed to confirm the geographic area included in their findings. We want to assure the state data is specific to the boundaries of the City of Flint, and not Flint addresses which would include addresses in areas outside of the City of Flint. These areas, such as Flint Township, that obtain their water from the Detroit Water Authority and would, therefore, not be representative of Flint River water as the water source. The County is prepared to take further action if the State fails to provide the requested data by September 30, 2015. Further action could include a request for outside independent evaluation of the data and to declare a Public Health Emergency in Flint.

COUNTY OF GENESEE

BY: 

Date: 9-29-15

Jamie Curtis, Chairperson  
Board of Commissioners

GENESEE COUNTY HEALTH DEPARTMENT

BY: 

Date: 9-29-15

Mark Valacak, M.P.H.  
Health Officer

---

**From:** Hanley, Farah (DCH)  
**Sent:** Wednesday, September 30, 2015 6:33 PM  
**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHS)  
**Cc:** Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DCH); Kangas, Susan (DHS); Smith, Terri (DHHS); Rigg, Steve (DTMB)  
**Subject:** RE: URGENT REQUEST - - WATER FILTERS

Thanks Rebecca. Are there other contracts we could use? Meijer is Michigan based. Can we check with them? If I'm violating some procurement policy then just stop me now...

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, September 30, 2015 6:30 PM  
**To:** Brownlee, Jeff (DTMB); Sanches, Christine (DHS)  
**Cc:** Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DCH); Kangas, Susan (DHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hanley, Farah (DCH)  
**Subject:** RE: URGENT REQUEST - - WATER FILTERS

As a Plan B, I just spoke with the Home Depot rep, and he will begin working on this tomorrow as well. Home Depot would like confirmation of the same questions, below.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, September 30, 2015 6:21 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DCH) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hanley, Farah (DCH) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>  
**Subject:** RE: URGENT REQUEST - - WATER FILTERS

All

I just spoke with our rep for the Grainger contract. We reviewed the specs, quantity and timeframe. He is activating his executive leadership now, and they will be working with vendors tomorrow morning to determine whether Grainger can fulfill this. I will receive a status update call by 10 am.

I may be receiving emails tonight and tomorrow morning with vendor questions. Who in DCH should be my lead contact to seek answers, or do you prefer I email them to the group?

A couple of questions now:

- Just to clarify, DHHS seeks a filter that fits on a residential kitchen faucet, and meets the specs in the attachment?
- How many filters are needed in an initial shipment?
- If Grainger can supply these, they may have to pull from various manufacturers that meet the specifications listed. Please confirm it is acceptable that DHHS may not receive 25,000 of precisely the same item.

Please contact me and buyer Steve Rigg with any questions.

Thank you.

Rebecca Cook

Cell 517-930-4015

**From:** Brownlee, Jeff (DTMB)

**Sent:** Wednesday, September 30, 2015 5:07 PM

**To:** Sanches, Christine (DHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DCH) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>

**Subject:** Re: URGENT REQUEST - - WATER FILTERS

Let's work together on this. Who are potential suppliers? Sharon, do we have existing suppliers/contracts?

Sent from my iPhone

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<http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/state-data-flint-lead/72820798/>

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Snyder must act on Flint lead crisis

Detroit Free Press – September 27, 2015, By Nancy Kaffer

<http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/shortfalls-em-law-writ-large-flint-water-crisis/72811990/>

Thanks,

Chris

Christine H. Sanches

Director, Office of Contracts & Purchasing

Michigan Department of Health & Human Services

Suite 1201

235 S. Grand Ave.

Lansing, MI 48933

[sanchesc@michigan.gov](mailto:sanchesc@michigan.gov)

517-335-1161 desk

517-614-9948 cell

<image002.jpg>

**CONFIDENTIALITY NOTICE:**

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<Flint Water Filter - Public Advisory.pdf>

**Department of Technology, Management & Budget  
Financial Services**

**REQUEST FOR PURCHASE ORDERS OR DIRECT VOUCHERS**

**CHECK BOX FOR DV OR REQUISITION/PURCHASE ORDER**

☐ **Direct Voucher – Attach Invoice**

**Date: 1/13/2016**

☐ **Requisition/Purchase Order – Attach Quote(s)**

<b>Agency Contact:</b>		<b>Phone #</b>	
Steve Rigg		517-284-7043	
<b>Division Name:</b>		<b>Title of Work/Project:</b>	
DTMB		Supplies for Flint	
<b>Vendor:</b>	Home Depot – David Khanuja	<b>Index #</b>	
<b>Email Address:</b>	David_Khanuja@homedepot.com	<b>Ship To:</b>	Genesee County Community Action Resource Department 2727 Lippincott Blvd. Flint, MI 48507  Matt Purcell 810-762-4922 mpurcell@co.genesee.mi.us
<b>Street Address:</b>	Home Depot U.S.A. Inc Home Depot 2455 Paces Ferry Rd. – Floor D15 Atlanta, GA 30339-4024		

***ALL Areas Must Be Completed***

**Description of Purchase:**

**This is for the purchase of items necessary to support the efforts of the State of Emergency that was declared in the City of Flint.**

**Brita faucet water filters and replacement cartridges.  
PUR faucet water filters and replacement cartridges.  
Bottled water.  
Plumbing materials.**

**Comments:**

**APPROVALS REQUIRED:**

**TOTAL  
COST:**

**\$4,217,214.45**

**\$0-\$2,500** (Can be paid on Direct Voucher)

Supervisor's Signature: \_\_\_\_\_

**\$2,501-\$10,000** (Needs 3 quotes for Purchase Order)

Manager's Signature: \_\_\_\_\_

**\$10,001-\$24,999** (Needs specifications to post on Buy4Michigan)

Division Director's Signature: \_\_\_\_\_

---

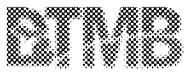
**From:** Rigg, Steve (DTMB)  
**Sent:** Thursday, January 14, 2016 1:39 PM  
**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB)  
**Cc:** Maynard, Sharon (DTMB)  
**Subject:** RE: Flint - LARA plumbing parts order

When I talked to David just before 1:00pm he said he just got off the phone with Jeanette and gave her an update on these supplies.

The order is ready to be picked up in the Lansing store per LARA's request. Apparently they want to drive the materials to Flint themselves. The only thing they will be waiting on will be the bubblers which were ordered this morning for "next day air early". I asked David to send me the UPS tracking number as soon as he gets one so that I can track the order from here.

*Steve Rigg*

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)



HELP. CONNECT. SOLVE.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 14, 2016 12:55 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** Flint - LARA plumbing parts order  
**Importance:** High

FYI -- you or Brom may also receive an update request. Steve is actively working on it and will cc you on the update as soon as it is confirmed.

---

**From:** Doll, Jeanette (DTMB)  
**Sent:** Thursday, January 14, 2016 12:31 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** Help  
**Importance:** High

Steve -- Can you call David K and find out the status of the plumbing order for LARA? Please and thank you

They would like a status update.

Jeanette Doll, Professional Emergency Manager  
MI Dept. of Technology, Management & Budget  
Emergency Management Coordinator  
(517) 373-2231 Office  
(517) 719-8763 Cell





---

**From:** State of Michigan <MISOM@govsubscriptions.michigan.gov>  
**Sent:** Thursday, January 14, 2016 5:22 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Volunteer Opportunity in Flint



The State Emergency Operations Center (SEOC) is coordinating a response to the ongoing health and safety issues in the city of Flint's drinking water. Teams from the Michigan State Police, Genesee County Sheriff's Department, Michigan Department of Health and Human Services, and volunteer organizations have been delivering bottled water, water filters, replacement cartridges and water testing kits at homes in the city of Flint since Tuesday.

To help with this critical work, the SEOC is looking for volunteers to expand this effort and continue this distribution during the upcoming holiday weekend. Teams are being assembled for shifts on Saturday, January 16; Sunday, January 17; and Monday, January 18, 2016. If you are interested in volunteering your time for this critical work, please complete the information in one of the attached surveys (depending on which day you are volunteering).

To volunteer on Saturday, January 16, <https://www.surveymonkey.com/r/28NVJBL>

To volunteer on Sunday, January 17, <https://www.surveymonkey.com/r/26NMJJK>

To volunteer on Monday, January 18, <https://www.surveymonkey.com/r/26P7P5G>

Volunteers will begin their assignment at the Local Emergency Operations Center located in the Genesee County Administration Building located at 1101 Beach St, Flint at 9 a.m. and end by 4 p.m. Parking is available at the corner of Beach Street and 8th Street. Lunch will be provided. This is strictly a volunteer effort, as all three days will be unpaid. Volunteers are responsible for their own transportation; mileage reimbursement for personal vehicles is not authorized. Volunteers should dress for working outdoors and wear foot attire appropriate for walking.

This opportunity is for state employees and their immediate family members 16 years of age or older only, others looking to assist should volunteer through the American Red Cross in Flint. The volunteer coordination center for the Red Cross is located at 1401 S. Grand Traverse, Flint, MI. They are open from 9 a.m. to 7 p.m.

For more information on the state's response efforts, visit [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater).

---

This e-mail was sent to [brownleej@michigan.gov](mailto:brownleej@michigan.gov) using GovDelivery on behalf of: the State of Michigan, 111 S.

Capitol Ave., Lansing, MI. *You are receiving this message because you are a State of Michigan employee.*

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Saturday, January 16, 2016 4:34 PM  
**To:** Rigg, Steve (DTMB)  
**Cc:** Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB)  
**Subject:** Fwd: NEWS UPDATE--Obama Grants Emergency Declaration For Flint

Begin forwarded message:

**From:** Gongwer News Service <gongwerreports@gongwer.com>  
**Date:** January 16, 2016 at 4:13:37 PM EST  
**To:** <Michigan\_State\_Employees\_updates@gongwer.com>  
**Subject:** NEWS UPDATE--Obama Grants Emergency Declaration For Flint  
**Reply-To:** <gongwerreports@gongwer.com>



Saturday, January 16, 2016, 04:12 PM

## Obama Grants Emergency Declaration For Flint

Flint's water crisis has been declared a federal emergency.

President Barack Obama on Saturday granted the request from Governor Rick Snyder to declare an emergency in the city as state and local officials, along with private citizens, have worked to provide safe drinking water to city residents.

The president did not grant a second request from Mr Snyder, however, to declare the city and Genesee County a major disaster area.

In a statement, Mr. Snyder, who made the request for the federal emergency declaration late Thursday night, said he appreciated Mr. Obama approving the request "during this critical situation. I have pledged to use all state resources possible to help heal Flint and these additional resources will greatly assist in efforts underway to ensure every resident has access to clean water resources."

The federal declaration means that up to \$5 million in U.S. monies can go to help provide water, water filters, filter replacements and water test kits. The financial assistance is for 90 days.

The state must match 25 percent of the federal assistance, under requirements in federal law. Such a match could be included in a supplemental appropriation the state will seek from the Legislature to assist Flint.

Should the \$5 million be exhausted, Congress can authorize additional funds for Flint.

The declaration comes as state and national outrage over the crisis, which resulted in Flint children suffering elevated lead levels after the corrosive water from the Flint River caused lead to leech from older plumbing systems, continues to grow.

The city had switched to using water from the Flint River, after it discontinued using the Detroit Water System, as Flint prepared to be part of a new water system that would draw water from Lake Huron. A decision to make that switch was made by the city's emergency manager at the time.

---

Please send all correspondence to [gongwer@gongwer.com](mailto:gongwer@gongwer.com) This mailbox is not regularly monitored.

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---

**From:** Sweeney, Matthew (DTMB)  
**Sent:** Tuesday, January 19, 2016 1:26 PM  
**To:** Brownlee, Jeff (DTMB)  
**Cc:** Calahan, Heather (DTMB)  
**Subject:** FW: Flint Water filters  
**Attachments:** image001.gif

Do you know if we're buying the filters all from one source?

---

**From:** Lange, Michelle (GOV) [<mailto:LangeM3@michigan.gov>]  
**Sent:** Tuesday, January 19, 2016 11:43 AM  
**To:** Sweeney, Matthew (DTMB); Starr, Scott (DTMB)  
**Subject:** Fwd: Flint Water filters

Do you guys have info on this?

Begin forwarded message:

**From:** "Keilen, Alison (GOV)" <[keilena2@michigan.gov](mailto:keilena2@michigan.gov)>  
**Date:** January 19, 2016 at 11:29:11 AM EST  
**To:** "Lange, Michelle (GOV)" <[LangeM3@michigan.gov](mailto:LangeM3@michigan.gov)>  
**Subject:** FW: Flint Water filters

Where to direct them?

---

**From:** Rep. Larry Inman (District 104) [<mailto:LarryInman@house.mi.gov>]  
**Sent:** Tuesday, January 19, 2016 10:50 AM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>; Keilen, Alison (GOV) <[keilena2@michigan.gov](mailto:keilena2@michigan.gov)>; Sweeney, Matthew (DTMB) <[SweeneyM1@michigan.gov](mailto:SweeneyM1@michigan.gov)>; Dehner, Amy (MSP) <[DehnerA@michigan.gov](mailto:DehnerA@michigan.gov)>; Fitzgerald, Timothy (MSP) <[fitzgeraldt@michigan.gov](mailto:fitzgeraldt@michigan.gov)>  
**Subject:** FW: Flint Water filters

Good Morning,

Representative Inman received the following email from one of his constituents. If someone could help me to obtain this information I would be very grateful.

Thank you,

**Danielle Bruci**  
Legislative Assistant  
Office of State Representative Larry Inman

**Anderson House Office Building, S1388**  
124 North Capitol Avenue

P.O. Box 30014  
Lansing, MI 48909-7514  
[DBruci@house.mi.gov](mailto:DBruci@house.mi.gov)  
Office: (517) 373-1766



---

**From:** Andy Marek [<mailto:diditforlove@yahoo.com>]  
**Sent:** Monday, January 18, 2016 10:32 PM  
**To:** Rep. Larry Inman (District 104) <[Larryinman@house.mi.gov](mailto:Larryinman@house.mi.gov)>  
**Subject:** Flint Water filters

Dear Representative Inman,

It has been brought to my attention that Michigan has been buying water filters for the City of Flint. I am interested in finding out what brand, model, and types of filters were purchased for Flint.

Thank you for your assistance retrieving this information,

Andy Marek  
2875 East Railroad Ave  
Interlochen, Mi 49643

(231)218-9175

[diditforlove@yahoo.com](mailto:diditforlove@yahoo.com)

---

**From:** Maynard, Sharon (DTMB)  
**Sent:** Thursday, January 21, 2016 10:30 AM  
**To:** Brownlee, Jeff (DTMB);Cook, Rebecca (DTMB)  
**Subject:** Fwd: Assistance  
**Attachments:** BIA Agreement AGF2009014 .pdf; ATT00001.htm

Fyi

Sent from my iPad

Begin forwarded message:

**From:** "Multerer, Kelley (DNR)" <[MultererK@michigan.gov](mailto:MultererK@michigan.gov)>  
**To:** "Maynard, Sharon (DTMB)" <[maynardsl@michigan.gov](mailto:maynardsl@michigan.gov)>, "Mikula, Brenda (DNR)" <[MIKULAB@michigan.gov](mailto:MIKULAB@michigan.gov)>  
**Subject: RE: Assistance**

Hi Sharon,

On large fires we are plugged into the Incident Management Team (IMT) and all have our individual duties/goals to carry out as well as communicating and working with the other team members to accomplish our goals defined by the Incident Action Plan (IAP) we create daily.

When I have been involved in larger fires I am plugged into the Incident Management Team (IMT) as cost/procurement or time/equipment which sometime defaults to pseudo finance chief. The "organized and documented" process we follow for purchasing on a fire is basically the DNR/DTMB purchasing rules/regs. on steroids. :) We operate under the Emergency Purchasing Guidelines but still enter ITRACs and such.

[http://dnrintranet.state.mi.us/pdfs/divisions/DNR\\_PolicyProcedures/13.01.11.htm](http://dnrintranet.state.mi.us/pdfs/divisions/DNR_PolicyProcedures/13.01.11.htm)

FRD also has various Mutual Aid Agreements on their intranet page. On a large fire we collect time/equipment information for Federal or other State Cooperators and typically the payment for this is handled by FRD Lansing. Below is a link to FRD Intranet with agreements. I attached a copy of BIA Agreement.

<http://inside.michigan.gov/dnr/divisions/fr/Pages/ResourceProtectionandCooperativePrograms.aspx?RootFolder=%2Fdnr%2Fdivisions%2Ffr%2FResource%20Protection%2FAgreements&FolderCTID=0x0120008A1FA9034B38044E91ECC007F6C2E394&View={5EA46013-352E-45C3-A66E-352A324779F3}>

Paul Kollmeyer is FRD Resource Protection Section Manager and would be able to share the division process on agreements/purchasing on large fires.

I have been following the news on Flint and I am curious to know how Local Government/SOM/Federal will handle purchasing, tracking of donations, etc. for this. The amount of money they are talking about to me means there needs to be a team devoted to this so that the money can be spent as quickly, efficiently and wisely as possible. This reminds me of

Katrina and the reported waste and corruption the huge influx of money triggered. I feel for the folks of Flint. I also believe that in times like this there are those that will take advantage and being fiscally responsible could be a challenge.

-----Original Message-----

From: Maynard, Sharon (DTMB)

Sent: Wednesday, January 20, 2016 6:05 PM

To: Mikula, Brenda (DNR); Multerer, Kelley (DNR)

Subject: Assistance

Hope you are well!!!!!! Been too long since I was able to say hi!!!!!!

Favor. When DNR has a fire, it seems like there is a well organized and documented process that

Is used particularly when it comes to purchasing. Can you please share that or direct me to whom could share that??? I realllly appreciate it!

Thanks!

Sent from my iPad



---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:40 AM  
**To:** Maynard, Sharon (DTMB); Brownlee, Jeff (DTMB)  
**Subject:** FW: Flint Issue Questions from DTMB Procurement  
**Attachments:** 7970216.pdf; 7971407.pdf; 7971408.pdf; 7971409.pdf; 7971410.pdf; 7971411.pdf; 7973654.pdf; 8970194.pdf; 8970195.pdf

FYI – questions Steve needs answered.

---

**From:** Rigg, Steve (DTMB)  
**Sent:** Thursday, January 21, 2016 10:37 AM  
**To:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>  
**Cc:** Thompson, Sheryl D. (DHHS) <[ThompsonSZ@michigan.gov](mailto:ThompsonSZ@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Thelen, Richard (DHHS) <[ThelenR4@michigan.gov](mailto:ThelenR4@michigan.gov)>  
**Subject:** Flint Issue Questions from DTMB Procurement

Chris/Jeanette,

My questions only pertain to Home Depot and the procurement of water filters, bottled water, and supplies needed for repairs. I'm trying to sort out the confusion that David from Home Depot and I have regarding the procurement of these items and the processing of payments. We need to finalize a fluid process for this so that we can avoid further confusion. I want to do everything I can to help, but I first need to understand the current process so I can direct what I have control over to the right people. I don't want there to be a disruption in the incoming flow of these items.

1. What is the current process for ordering these items? David from Home Depot is currently getting calls from a minimum of 4 different people.
2. What is FEMA's role in procuring these items? Apparently a FEMA rep called Brita directly to order filters. Home Depot has cornered the market on all filters from Brita and PUR, so it is suggested that we continue to work directly with David from Home Depot.
3. If FEMA does take over the ordering of filters, water, and supplies, will they agree to work with Home Depot and who is the contact person that could work directly with David from Home Depot?
4. Will FEMA be creating contracts directly with manufacturers or will they utilize current contracted vendors?
5. If FEMA takes over, will they be paying invoices directly or will that continue to be done by the State?
6. What happens when FEMA leaves in 3 months?
7. Who is responsible for entering Home Depot receipts into the MySimms tracking system so that David from Home Depot can send these receipts to that person directly? I have attached the receipts that I have received from Home Depot.
8. Right now Home Depot invoices are sent out monthly because of the 60 day terms in the contract. However, we currently have over \$10,000,000 in outstanding invoices. We had gotten CitiBank to increase our credit limit to \$10,000,000 last week. We requested CitiBank to increase the credit line to \$20,000,000, but that has not yet been approved by CitiBank. To keep the credit line open we need to turn around these invoices much quicker. Citi has an EFT program that a State designee could log into and pull invoices from immediately to get

them paid. Who would be the person that Citi could set up an account with so that they could log in and download invoices for quicker processing?

9. LARA recently purchased items from Home Depot for plumbing supplies. Moving forward, if LARA is to procure any more items through Home Depot can they work directly with David from Home Depot so as to not cause any more delays?

That is all I have at this point. Thanks for any feedback.

***Steve Rigg***

Buyer, Commodities Division

DTMB-Procurement

(517)284-7043

[RiggS@michigan.gov](mailto:RiggS@michigan.gov)



**HELP. CONNECT. SOLVE.**



## Credit Services - Receipt LookUp

## Receipt

Transaction Identifier : [2717, 01/12/2016, 97, 6841]

Printed on: 01/18/2016 15:04:27

## Receipt Image



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4245 E COURT ST BURTON MI 48009-7155  
FOLLOW US ON TWITTER @HDBURTONMI

2717 00097 68417 01/12/16 10:18 AM  
CASHIER - SPOS01

ORDER ID: 2717-366012  
RECALL AMOUNT 62627.04

SUBTOTAL 62,627.04  
SALES TAX 0.00  
TOTAL \$62,627.04  
XXXXXXXXXX0214 HOME DEPOT 62,627.04  
AUTH CODE 012243/7970216 TA

DHHS  
STATE EMPLOYEES DHS

## Account Details

Xref number	Account Number	Type	ExpDate	Signature	Entry
XXXXXXXXXXXX0214	XXXXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					

## Miscellaneous Details

Sales Posting Date : 01/12/2016  
Transaction source : SPECIAL SERVICES

## PRO XTRA MEMBER STATEMENT

PRO XTRA ###-###-4960 SUMMARY  
THIS RECEIPT PO/JOB NAME: 431N6600219  
PRO XTRA SPEND THIS VISIT: \$62,627.04  
2016 PRO XTRA SPEND 01/11: \$123,041.80

As of 01/12/2016 your Paint Rewards level is Pro - 0.0%; Spend 115814331.16 more in qualifying paint purchases to earn Pro - 8.5% (8.5% off) on select paint items.

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Purchase made with Registered Card.

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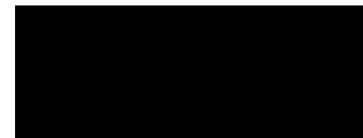
BUY ONLINE PICK-UP IN STORE AVAILABLE NOW ON HOMEDEPOT.COM. CONVENIENT, EASY AND MOST ORDERS READY IN LESS THAN 2 HOURS!  
\*\*\*\*\*

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Entries must be entered by 02/11/2016.

Entrants must be 18 or older to enter.  
See complete rules on website. No  
purchase necessary.



## Credit Services - Receipt LookUp

## Receipt

Transaction Identifier : [2763, 01/12/2016, 97, 1176]

Printed on: 01/18/2016 15:05:02

## Receipt Image



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ON TWITTER  
@HOMEDEPOTHILLRD 1-810-232-7113

2763 00097 11763 01/12/16 01:20 PM  
CASHIER - SPOS01

ORDER ID: 2763-191323  
RECALL AMOUNT 374500.00

SUBTOTAL 374,500.00  
SALES TAX 0.00  
TOTAL \$374,500.00  
XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012391/7971407 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012252/7971408 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012215/7971409 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012520/7971410 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 14,500.00  
AUTH CODE 012855/7971411 TA

DHHS  
STATE EMPLOYEES DHS

## PRO XTRA MEMBER STATEMENT

PRO XTRA ###-###-4960 SUMMARY  
THIS RECEIPT PO/JOB NAME: 431N6600219

PRO XTRA SPEND THIS VISIT: \$374,500.00

2016 PRO XTRA SPEND 01/11: \$123,041.80

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## Account Details

Xref number	Account Number	Type	ExpDate	Signature	Entry
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					

## Miscellaneous Details

Sales Posting Date : 01/12/2016

Transaction source : SPECIAL SERVICES

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## Credit Services - Receipt LookUp

## Receipt

Transaction Identifier : [2763, 01/12/2016, 97, 1176]

Printed on: 01/18/2016 15:06:56

## Receipt Image



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ON TWITTER

@HOMEDEPOTHILLRD 1-810-232-7113

2763 00097 11763 01/12/16 01:20 PM  
CASHIER - SPOS01

ORDER ID: 2763-191323  
RECALL AMOUNT 374500.00

SUBTOTAL 374,500.00  
SALES TAX 0.00  
TOTAL \$374,500.00  
XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012391/7971407 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012252/7971408 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012215/7971409 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012520/7971410 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 14,500.00  
AUTH CODE 012855/7971411 TA

DHHS  
STATE EMPLOYEES DHS

## PRO XTRA MEMBER STATEMENT

PRO XTRA ###-###-4960 SUMMARY  
THIS RECEIPT PO/JOB NAME: 431N6600219

PRO XTRA SPEND THIS VISIT: \$374,500.00

2016 PRO XTRA SPEND 01/11: \$123,041.80

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## Account Details

Xref number	Account Number	Type	ExpDate	Signature	Entry
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Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					

## Miscellaneous Details

Sales Posting Date : 01/12/2016

Transaction source : SPECIAL SERVICES

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**Credit Services - Receipt LookUp**  
**Receipt**  
 Transaction Identifier : [2763, 01/12/2016, 97, 1176]

Printed on: 01/18/2016 15:07:20

**Receipt Image**

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ON TWITTER

@HOMEDEPOTHILLRD 1-810-232-7113

2763 00097 11763 01/12/16 01:20 PM  
 CASHIER - SPOS01

ORDER ID: 2763-191323  
 RECALL AMOUNT 374500.00

SUBTOTAL 374,500.00  
 SALES TAX 0.00  
 TOTAL \$374,500.00  
 XXXXXXXXXXXX0214 HOME DEPOT 90,000.00  
 AUTH CODE 012391/7971407 TA

DHHS  
 STATE EMPLOYEES DHS

XXXXXXXXXXXX0214 HOME DEPOT 90,000.00  
 AUTH CODE 012252/7971408 TA

DHHS  
 STATE EMPLOYEES DHS

XXXXXXXXXXXX0214 HOME DEPOT 90,000.00  
 AUTH CODE 012215/7971409 TA

DHHS  
 STATE EMPLOYEES DHS

XXXXXXXXXXXX0214 HOME DEPOT 90,000.00  
 AUTH CODE 012520/7971410 TA

DHHS  
 STATE EMPLOYEES DHS

XXXXXXXXXXXX0214 HOME DEPOT 14,500.00  
 AUTH CODE 012855/7971411 TA

DHHS  
 STATE EMPLOYEES DHS

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PRO XTRA SPEND THIS VISIT: \$374,500.00

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**Account Details**

Xref number	Account Number	Type	ExpDate	Signature	Entry
XXXXXXXXXXXX0214	XXXXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
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Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
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Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXXXX0214	XXXXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXXXX0214	XXXXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					

**Miscellaneous Details**

Sales Posting Date : 01/12/2016

Transaction source : SPECIAL SERVICES

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## Credit Services - Receipt LookUp

## Receipt

Transaction Identifier : [2763, 01/12/2016, 97, 1176]

Printed on: 01/18/2016 15:05:34

## Receipt Image



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2763 00097 11763 01/12/16 01:20 PM  
CASHIER - SPOS01

ORDER ID: 2763-191323  
RECALL AMOUNT 374500.00

SUBTOTAL 374,500.00  
SALES TAX 0.00  
TOTAL \$374,500.00  
XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012391/7971407 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012252/7971408 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012215/7971409 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012520/7971410 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 14,500.00  
AUTH CODE 012855/7971411 TA

DHHS  
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## PRO XTRA MEMBER STATEMENT

PRO XTRA ###-###-4960 SUMMARY  
THIS RECEIPT PO/JOB NAME: 431N6600219

PRO XTRA SPEND THIS VISIT: \$374,500.00

2016 PRO XTRA SPEND 01/11: \$123,041.80

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\*\*\*\*\*

## Account Details

Xref number	Account Number	Type	ExpDate	Signature	Entry
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					

## Miscellaneous Details

Sales Posting Date : 01/12/2016

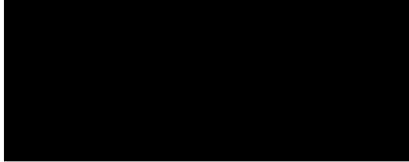
Transaction source : SPECIAL SERVICES

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ENCUESTA PARA LA OPORTUNIDAD DE GANAR.



Entries must be entered by 02/11/2016.  
Entrants must be 18 or older to enter.  
See complete rules on website. No  
purchase necessary.



## Credit Services - Receipt LookUp

## Receipt

Transaction Identifier : [2763, 01/12/2016, 97, 1176]

Printed on: 01/18/2016 15:05:59

## Receipt Image



**More saving.  
More doing.™**

ON TWITTER

@HOMEDEPOTHILLRD 1-810-232-7113

2763 00097 11763 01/12/16 01:20 PM  
CASHIER - SPOS01

ORDER ID: 2763-191323  
RECALL AMOUNT 374500.00

SUBTOTAL 374,500.00  
SALES TAX 0.00  
TOTAL \$374,500.00  
XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012391/7971407 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012252/7971408 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012215/7971409 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012520/7971410 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 14,500.00  
AUTH CODE 012855/7971411 TA

DHHS  
STATE EMPLOYEES DHS

## PRO XTRA MEMBER STATEMENT

PRO XTRA ###-###-4960 SUMMARY  
THIS RECEIPT PO/JOB NAME: 431N6600219

PRO XTRA SPEND THIS VISIT: \$374,500.00

2016 PRO XTRA SPEND 01/11: \$123,041.80

As of 01/12/2016 your Paint Rewards level is Pro - 0.0%; Spend 115502458.20 more in qualifying paint purchases to earn Pro - 8.5% (8.5% off) on select paint items.

Thank you for being a Pro Xtra member!  
Sign in to your Pro Xtra account and register your credit cards to access your past receipts!

Purchase made with Registered Card



THE HOME DEPOT RESERVES THE RIGHT TO LIMIT / DENY RETURNS. PLEASE SEE THE RETURN POLICY SIGN IN STORES FOR DETAILS.

BUY ONLINE PICK-UP IN STORE  
AVAILABLE NOW ON HOMEDEPOT.COM.  
CONVENIENT, EASY AND MOST ORDERS  
READY IN LESS THAN 2 HOURS!

\*\*\*\*\*

## Account Details

Xref number	Account Number	Type	ExpDate	Signature	Entry
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					

## Miscellaneous Details

Sales Posting Date : 01/12/2016

Transaction source : SPECIAL SERVICES

**ENTER FOR A CHANCE  
TO WIN A \$5,000  
HOME DEPOT GIFT  
CARD!**

Share Your Opinion With Us! Complete  
the brief survey about your store visit  
and enter for a chance to win at:

[www.homedepot.com/opinion](http://www.homedepot.com/opinion)

COMPARTA SU OPINION EN UNA BREVE  
ENCUESTA PARA LA OPORTUNIDAD DE GANAR.



Entries must be entered by 02/11/2016.  
Entrants must be 18 or older to enter.  
See complete rules on website. No  
purchase necessary.



## Credit Services - Receipt LookUp

## Receipt

Transaction Identifier : [2716, 01/12/2016, 97, 8640]

Printed on: 01/18/2016 15:06:27

## Receipt Image



**More saving.  
More doing.™**

VOC SURVEY THINK TEN  
4320 CORUNNA RD FLINT MI 410-230-8740

2716 00097 86401 01/12/16 02:31 PM  
CASHIER - SPOS01

ORDER ID: 2716-334115  
RECALL AMOUNT 38987.00

SUBTOTAL 38,987.00  
SALES TAX 0.00  
TOTAL \$38,987.00  
XXXXXXXXXX0214 HOME DEPOT 38,987.00  
AUTH CODE 012492/7973654 TA

DHHS  
STATE EMPLOYEES DHS

## PRO XTRA MEMBER STATEMENT

PRO XTRA ###-###-4960 SUMMARY  
THIS RECEIPT PO/JOB NAME: 431N6600219  
PRO XTRA SPEND THIS VISIT: \$38,987.00  
2016 PRO XTRA SPEND 01/11: \$123,041.80

As of 01/12/2016 your Paint Rewards level is Pro - 0.0%; Spend 115837971.20 more in qualifying paint purchases to earn Pro - 8.5% (8.5% off) on select paint items.

Thank you for being a Pro Xtra member! Sign in to your Pro Xtra account and register your credit cards to access your past receipts!

Purchase made with 

27

THE HOME DEPOT RESERVES THE RIGHT TO LIMIT / DENY RETURNS. PLEASE SEE THE RETURN POLICY SIGN IN STORES FOR DETAILS.

BUY ONLINE PICK-UP IN STORE  
AVAILABLE NOW ON HOMEDEPOT.COM.  
CONVENIENT, EASY AND MOST ORDERS  
READY IN LESS THAN 2 HOURS!

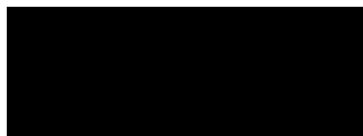
\*\*\*\*\*

**ENTER FOR A CHANCE  
TO WIN A \$5,000  
HOME DEPOT GIFT  
CARD!**

Share Your Opinion With Us! Complete the brief survey about your store visit and enter for a chance to win at:

[www.homedepot.com/opinion](http://www.homedepot.com/opinion)

COMPARTA SU OPINION EN UNA BREVE ENCUESTA PARA LA OPORTUNIDAD DE GANAR.



Entries must be entered by 02/11/2016.

## Account Details

Xref number	Account Number	Type	ExpDate	Signature	Entry
XXXXXXXXXXXX0214	XXXXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					

## Miscellaneous Details

Sales Posting Date : 01/12/2016  
Transaction source : SPECIAL SERVICES

Entrants must be 18 or older to enter.  
See complete rules on website. No  
purchase necessary.





## Credit Services - Receipt LookUp

## Receipt

Transaction Identifier : [2763, 01/12/2016, 97, 1176]

Printed on: 01/18/2016 15:03:17

## Receipt Image



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ON TWITTER

@HOMEDEPOTHILLRD 1-810-232-7113

2763 00097 11763 01/12/16 01:20 PM  
CASHIER - SPOS01

ORDER ID: 2763-191323  
RECALL AMOUNT 374500.00

SUBTOTAL 374,500.00  
SALES TAX 0.00  
TOTAL \$374,500.00  
XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012391/7971407 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012252/7971408 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012215/7971409 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 012520/7971410 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 14,500.00  
AUTH CODE 012855/7971411 TA

DHHS  
STATE EMPLOYEES DHS

## PRO XTRA MEMBER STATEMENT

PRO XTRA ###-###-4960 SUMMARY  
THIS RECEIPT PO/JOB NAME: 431N6600219

PRO XTRA SPEND THIS VISIT: \$374,500.00

2016 PRO XTRA SPEND 01/11: \$123,041.80

As of 01/12/2016 your Paint Rewards level is Pro - 0.0%; Spend 115502458.20 more in qualifying paint purchases to earn Pro - 8.5% (8.5% off) on select paint items.

Thank you for being a Pro Xtra member!  
Sign in to your Pro Xtra account and register your credit cards to access your past receipts!

Purchase made with Registered Card.

27

THE HOME DEPOT TO  
LIMIT / DENY RETURNS. PLEASE SEE THE  
RETURN POLICY SIGN IN STORES FOR  
DETAILS.

BUY ONLINE PICK-UP IN STORE  
AVAILABLE NOW ON HOMEDEPOT.COM.  
CONVENIENT, EASY AND MOST ORDERS  
READY IN LESS THAN 2 HOURS!

\*\*\*\*\*

## Account Details

Xref number	Account Number	Type	ExpDate	Signature	Entry
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					
- - - - Tender details ends - - - -					
XXXXXXXXXX0214	XXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/13/2016					

## Miscellaneous Details

Sales Posting Date : 01/12/2016

Transaction source : SPECIAL SERVICES

**ENTER FOR A CHANCE  
TO WIN A \$5,000  
HOME DEPOT GIFT  
CARD!**

Share Your Opinion With Us! Complete  
the brief survey about your store visit  
and enter for a chance to win at:

[www.homedepot.com/opinion](http://www.homedepot.com/opinion)

COMPARTA SU OPINION EN UNA BREVE  
ENCUESTA PARA LA OPORTUNIDAD DE GANAR.



Entries must be entered by 02/11/2016.  
Entrants must be 18 or older to enter.  
See complete rules on website. No  
purchase necessary.



## Credit Services - Receipt LookUp

## Receipt

Transaction Identifier : [2717, 01/11/2016, 97, 6809]

Printed on: 01/18/2016 15:03:55

## Receipt Image



**More saving.  
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4245 E COURT ST BURTON MI 48009-1700  
FOLLOW US ON TWITTER @HDBURTONMI

2717 00097 68094 01/11/16 01:14 PM  
CASHIER - SPOS01

ORDER ID: 2717-365980  
RECALL AMOUNT 123008.00

SUBTOTAL 123,008.00  
SALES TAX 0.00  
TOTAL \$123,008.00  
XXXXXXXXXX0214 HOME DEPOT 90,000.00  
AUTH CODE 011453/8970194 TA

DHHS  
STATE EMPLOYEES DHS

XXXXXXXXXX0214 HOME DEPOT 33,008.00  
AUTH CODE 011728/8970195 TA

DHHS  
STATE EMPLOYEES DHS

## PRO XTRA MEMBER STATEMENT

PRO XTRA ###-###-4960 SUMMARY  
THIS RECEIPT PO/JOB NAME: 431N6600219

PRO XTRA SPEND THIS VISIT: \$123,008.00

2016 PRO XTRA SPEND 01/10: \$33.80

As of 01/11/2016 your Paint Rewards level is Pro - 0.0%; Spend 115876958.20 more in qualifying paint purchases to earn Pro - 8.5% (8.5% off) on select paint items.

Thank you for being a Pro Xtra member!  
Sign in to your Pro Xtra account and register your credit cards to access your past receipts!

Purchase made with Registered Card.



2717 97 68094 01/11/2016 6263

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\*\*\*\*\*

**ENTER FOR A CHANCE  
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HOME DEPOT GIFT  
CARD!**

Share Your Opinion With Us! Complete the brief survey about your store visit and enter for a chance to win at:

[www.homedepot.com/opinion](http://www.homedepot.com/opinion)

COMPARTA SU OPINION EN UNA BREVE ENCUESTA PARA LA OPORTUNIDAD DE GANAR.



## Account Details

Xref number	Account Number	Type	ExpDate	Signature	Entry
XXXXXXXXXXXX0214	XXXXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/12/2016					
- - - - "Tender details ends" - - - -					
XXXXXXXXXXXX0214	XXXXXXXXXXXX0214	HD	NA	P	KEY CNP
Settlement Release Date : 01/12/2016					

## Miscellaneous Details

Sales Posting Date : 01/11/2016  
Transaction source : SPECIAL SERVICES



Entries must be entered by 02/10/2016.  
Entrants must be 18 or older to enter.  
See complete rules on website. No  
purchase necessary.

---

**From:** Sambiagio, Melissa (DTMB)  
**Sent:** Thursday, January 21, 2016 2:39 PM  
**To:** Hummel, Mindy (DTMB); Brownlee, Jeff (DTMB)  
**Cc:** Cook, Rebecca (DTMB); Maynard, Sharon (DTMB); Rigg, Steve (DTMB); McKee, Ryan (DTMB)  
**Subject:** RE: New Cell phone request - related to State emergency  
**Attachments:** RiggCellPhone20160121.pdf; SambiagioCellPhone20160121.pdf

See the attached forms. I understand the Index Number will be provided by Ryan McKee's office. I'm working on verifying the code.

### *Melissa Sambiagio*

State of Michigan  
Department of Technology, Management and Budget  
Procurement – Commodities Division  
Constitution Hall, 1-N  
525 West Allegan Street  
Lansing, Michigan 48933  
517-284-7016 Office  
855-647-8724 Toll Free Customer Service  
517-335-0046 Facsimile  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

Website: [www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)  
Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)



**HELP. CONNECT. SOLVE.**

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 2:27 PM  
**To:** Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Cc:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>  
**Subject:** RE: New Cell phone request - related to State emergency

Great thanks Jeff.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 2:25 PM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** Re: New Cell phone request - related to State emergency

Mindy, I just signed off on them.

Sent from my iPhone

On Jan 21, 2016, at 2:24 PM, Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)> wrote:

I'll need the forms by 3:00 if I'm going to be able to get the order in on time for shipping tonight.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image002.png>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:26 PM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Downtown. Constitution Hall  
First Floor, North Tower  
Procurement is off of the main entrance lobby.  
Both are by Pillar Q2

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 12:23 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

No problem at all.

Are they located downtown or Secondary?

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image004.png>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:22 PM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Definite yes on that.

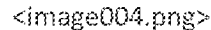
Knew I could count on you -- thanks a million Mindy!

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 12:16 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

If I can get them ordered today, they will be delivered tomorrow.

Will they need access to mail, contacts and calendar?

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:13 PM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Melissa can you please coordinate? Please interrupt leadership in any meeting for any signatures needed.

Thank you.

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 11:59 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Attached is the form that will need to be completed for both users. The devices available are:

iPhone 5S - \$0.99

iPhone 6 - \$99.99  
Samsung Galaxy S5 - \$99.99

Once it has signed approval, please e-mail the form to me and I'll get them ordered.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image004.png>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 11:21 AM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Re: New Cell phone request - related to State emergency

Steve Rigg and Melissa Sambiagio

I'm in meetings and Melissa will work with you to get any forms filled out, coordinate our sign offs etc.

Thanks for checking on that

On Jan 21, 2016, at 11:17 AM, Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)> wrote:

Hi Rebecca:  
Yes, I'd be happy to help.

Who are they for? I'll need to check to make sure this isn't something that should be processed through Infrastructure Security as they have already purchased devices for this project.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image003.png>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:49 AM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>; Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>  
**Cc:** Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** New Cell phone request - related to State emergency

Mindy



Our cell phone coordinator Kelly is out sick today. Jeff Wellman asked me to check into getting two of our buyers State phones while they are involved in supporting the Emergency Ops Center/Flint.

Can you help me through basics to get rough numbers? Appreciate any assistance you can provide.

Rebecca Cook  
State of Michigan  
DTMB Procurement  
Commodities Division Director  
517-284-7008

<image001.gif>

---

**From:** Wellman, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 10:41 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Melissa, thank you very much for volunteering – it is greatly appreciated.

Rebecca - can we get Melissa a state phone?

Jeff W.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:38 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Cc:** Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>  
**Subject:** FW: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

FYI – no action needed.

Just wanted to share we have a second staffer stepping up and delivering great customer service related to Flint. Melissa has volunteered to take phone questions related to water sampling bottles during the SEOC hours of 8 am to 8 pm. Or whenever the phone rings.

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Thursday, January 21, 2016 10:22 AM  
**To:** Wolf, Jennifer (DNR) <WOLFJ1@michigan.gov>  
**Cc:** Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>; Campbell, Mary Jo (DEQ) <CAMPBELLM3@michigan.gov>; Austin, Dawn (DEQ) <AUSTIND3@michigan.gov>; Smith, Carol (DEQ) <SMITHC@michigan.gov>; Pieper, Julia (DEQ) <PIEPERJ2@michigan.gov>; Christensen, Christen (DEQ) <CHRISTENSENC@michigan.gov>; Doll, Jeanette (DTMB) <dollj@michigan.gov>; Shane, Kirby (DEQ) <SHANEK@michigan.gov>; Lundy, Anastasia (DEQ) <LundyA1@michigan.gov>; Adelman, Mitch (DEQ) <ADELMANM@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Subject:** Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Hi Jen,

As we discussed in our conference call, Melissa Sambiagio and I are the points of contact to order water testing bottles or any supplies necessary for the laboratory related to Flint. All individuals listed above are to be copied on any order request. In the event of an after office hours need, we can be reached as follows:

Tara Premoe	517-749-0796	Office hours 7:30 am to 4:00 pm
Melissa Sambiagio	517-404-0000	Office hours 7:30 am to 4:00 pm

After office hours contact by phone will be necessary, as neither of us have a state issued phone for which we receive email communications. Once we receive a phone alert, we can access email to determine the course of action.

In order to avoid the enormous shipping costs for overnight delivery of water testing bottles, please keep us apprised on the status of inventory and anticipated need.

Thank you.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

**Melissa Sambiagio**  
DTMB, Commodities Division  
PH: (517) 284-7016  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 3:12 PM  
**To:** Shane, Kirby (DEQ); Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ); Cook, Rebecca (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Follow up to today's conference call:

Bottle orders may be requested by Mitch Adelman & Jen Wolf via their state email address or the MSP-EOC-MDEQ address to Tara Premoe & Melissa Sambiagio with a copy to Kirby.

The address for the warehouse is Dell Warehouse, 4315 N Clio Rd, Flint, MI 48504

---

**From:** Shane, Kirby (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:59 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Can we conference call at 12:30 today to discuss this? I don't know how to setup a conference call from here, but if everyone is on board and someone can set up the call and distribute the call in number to the group that would be great!

Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shanek@michigan.gov](mailto:shanek@michigan.gov)  
517.335.9888

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:52 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Please see the email from yesterday afternoon, response from Jeanette Doll. FEMA is listed as taking over "collection bottles for water testing." This was also discussed in my phone discussion with her this morning.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:48 AM  
**To:** Lundy, Anastasia (DEQ); Premoe, Tara (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Ah... I see where the confusion lies. They have taken over purchases of **Drinking Water**. Not test kit bottles.

---

**From:** Lundy, Anastasia (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:33 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

(Including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*  
*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:32 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB)  
**Subject:** RE: Conference Call ref. Purchases

Hi Jen,

This is opposite from the phone conversation I just had with Jeanette Doll and emails that FEMA will be taking over the water bottles. We have several orders pending with VWR for bottles, some shipping Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:26 AM  
**To:** Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Subject:** Conference Call ref. Purchases

Can we have a conference call today to discuss? As far as purchasing goes. The lab is still making all of their purchases. This includes test bottles, labels, etc. as this is an activity being conducted for DEQ, not a provision of life services to the public. At times the SEOC rep is involved because it is after hours, on a weekend or like this week, a holiday where shipping needed to be expedited. We should not run into this problem again from here on out as we have provided clearer direction to Command Staff in the SEOC on our target numbers per George Krisztian.

All billing should still be going through the laboratory or RRD as always. If we need resources that our vendors cannot supply then we get with DTMB and possibly

FEMA. We should be getting more direction here today on what and when FEMA will be integrating.

F/Lt. Jen Wolf  
SEOC OPS Health and Env MDEQ  
SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 2:41 PM  
**To:** Sambiagio, Melissa (DTMB); Brownlee, Jeff (DTMB)  
**Cc:** Cook, Rebecca (DTMB); Maynard, Sharon (DTMB); Rigg, Steve (DTMB); McKee, Ryan (DTMB)  
**Subject:** RE: New Cell phone request - related to State emergency

I already have the index as I have been ordering other equipment. Thank you, I'll let you know when they get in tomorrow.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

---

**From:** Sambiagio, Melissa (DTMB)  
**Sent:** Thursday, January 21, 2016 2:39 PM  
**To:** Hummel, Mindy (DTMB) <HummelM@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Cc:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; McKee, Ryan (DTMB) <mckeer1@michigan.gov>  
**Subject:** RE: New Cell phone request - related to State emergency

See the attached forms. I understand the Index Number will be provided by Ryan McKee's office. I'm working on verifying the code.

*Melissa Sambiagio*

State of Michigan  
Department of Technology, Management and Budget  
Procurement – Commodities Division  
Constitution Hall, 1-N  
525 West Allegan Street  
Lansing, Michigan 48933  
517-284-7016 Office  
855-647-8724 Toll Free Customer Service  
517-335-0046 Facsimile  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

Website: [www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)  
Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)



**HELP. CONNECT. SOLVE.**

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 2:27 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Cc:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Great thanks Jeff.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 2:25 PM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** Re: New Cell phone request - related to State emergency

Mindy, I just signed off on them.

Sent from my iPhone

On Jan 21, 2016, at 2:24 PM, Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)> wrote:

I'll need the forms by 3:00 if I'm going to be able to get the order in on time for shipping tonight.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image002.png>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:26 PM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Downtown. Constitution Hall  
First Floor, North Tower  
Procurement is off of the main entrance lobby.  
Both are by Pillar Q2

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 12:23 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

No problem at all.

Are they located downtown or Secondary?

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image004.png>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:22 PM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Definite yes on that.

Knew I could count on you -- thanks a million Mindy!

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 12:16 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

If I can get them ordered today, they will be delivered tomorrow.

Will they need access to mail, contacts and calendar?

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image004.png>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:13 PM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB)



<BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>

**Subject:** RE: New Cell phone request - related to State emergency

Melissa can you please coordinate? Please interrupt leadership in any meeting for any signatures needed.

Thank you.

---

**From:** Hummel, Mindy (DTMB)

**Sent:** Thursday, January 21, 2016 11:59 AM

**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>

**Cc:** Hamilton, Kelly (DTMB) <HamiltonK9@michigan.gov>; Davis, Stephen (DTMB) <daviss1@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>

**Subject:** RE: New Cell phone request - related to State emergency

Attached is the form that will need to be completed for both users. The devices available are:

iPhone 5S - \$0.99

iPhone 6 - \$99.99

Samsung Galaxy S5 - \$99.99

Once it has signed approval, please e-mail the form to me and I'll get them ordered.

Mindy Hummel

DTMB/Financial Services

517-373-2215 Phone

517-230-2447 Cell

517-241-4856 Fax

<image004.png>

---

**From:** Cook, Rebecca (DTMB)

**Sent:** Thursday, January 21, 2016 11:21 AM

**To:** Hummel, Mindy (DTMB) <HummelM@michigan.gov>

**Cc:** Hamilton, Kelly (DTMB) <HamiltonK9@michigan.gov>; Davis, Stephen (DTMB) <daviss1@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>

**Subject:** Re: New Cell phone request - related to State emergency

Steve Rigg and Melissa Sambiagio

I'm in meetings and Melissa will work with you to get any forms filled out, coordinate our sign offs etc.

Thanks for checking on that

On Jan 21, 2016, at 11:17 AM, Hummel, Mindy (DTMB) <HummelM@michigan.gov> wrote:

Hi Rebecca:

Yes, I'd be happy to help.

Who are they for? I'll need to check to make sure this isn't something that should be processed through Infrastructure Security as they have already purchased devices for this project.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image003.png>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:49 AM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>; Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>  
**Cc:** Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** New Cell phone request - related to State emergency

Mindy

Our cell phone coordinator Kelly is out sick today. Jeff Wellman asked me to check into getting two of our buyers State phones while they are involved in supporting the Emergency Ops Center/Flint.

Can you help me through basics to get rough numbers? Appreciate any assistance you can provide.

Rebecca Cook  
State of Michigan  
DTMB Procurement  
Commodities Division Director  
517-284-7008

<image001.gif>

---

**From:** Wellman, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 10:41 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Melissa, thank you very much for volunteering – it is greatly appreciated.

Rebecca - can we get Melissa a state phone?

Jeff W.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 10:38 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ1@michigan.gov](mailto:BrownleeJ1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Cc:** Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>  
**Subject:** FW: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

FYI -- no action needed.

Just wanted to share we have a second staffer stepping up and delivering great customer service related to Flint. Melissa has volunteered to take phone questions related to water sampling bottles during the SEOC hours of 8 am to 8 pm. Or whenever the phone rings.

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Thursday, January 21, 2016 10:22 AM  
**To:** Wolf, Jennifer (DNR) <[WOLFJ1@michigan.gov](mailto:WOLFJ1@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Campbell, Mary Jo (DEQ) <[CAMPBELLM3@michigan.gov](mailto:CAMPBELLM3@michigan.gov)>; Austin, Dawn (DEQ) <[AUSTIND3@michigan.gov](mailto:AUSTIND3@michigan.gov)>; Smith, Carol (DEQ) <[SMITHC@michigan.gov](mailto:SMITHC@michigan.gov)>; Pieper, Julia (DEQ) <[PIEPERJ2@michigan.gov](mailto:PIEPERJ2@michigan.gov)>; Christensen, Christen (DEQ) <[CHRISTENSENC@michigan.gov](mailto:CHRISTENSENC@michigan.gov)>; Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Shane, Kirby (DEQ) <[SHANEK@michigan.gov](mailto:SHANEK@michigan.gov)>; Lundy, Anastasia (DEQ) <[LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)>; Adelman, Mitch (DEQ) <[ADELMANM@michigan.gov](mailto:ADELMANM@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Hi Jen,

As we discussed in our conference call, Melissa Sambiagio and I are the points of contact to order water testing bottles or any supplies necessary for the laboratory related to Flint. All individuals listed above are to be copied on any order request. In the event of an after office hours need, we can be reached as follows:

Tara Premoe	517-749-0796	Office hours 7:30 am to 4:00 pm
Melissa Sambiagio	517-404-0000	Office hours 7:30 am to 4:00 pm

After office hours contact by phone will be necessary, as neither of us have a state issued phone for which we receive email communications. Once we receive a phone alert, we can access email to determine the course of action.

In order to avoid the enormous shipping costs for overnight delivery of water testing bottles, please keep us apprised on the status of inventory and anticipated need.

Thank you.

**Tara Premoe**  
Administration

**Melissa Sambiagio**  
DTMB, Commodities Division

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 3:12 PM  
**To:** Shane, Kirby (DEQ); Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ); Cook, Rebecca (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Follow up to today's conference call:

Bottle orders may be requested by Mitch Adelman & Jen Wolf via their state email address or the MSP-EOC-MDEQ address to Tara Premoe & Melissa Sambiagio with a copy to Kirby.

The address for the warehouse is Dell Warehouse, 4315 N Clio Rd, Flint, MI 48504

---

**From:** Shane, Kirby (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:59 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Can we conference call at 12:30 today to discuss this? I don't know how to setup a conference call from here, but if everyone is on board and someone can set up the call and distribute the call in number to the group that would be great!

Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shanek@michigan.gov](mailto:shanek@michigan.gov)  
517.335.9888

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:52 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Please see the email from yesterday afternoon, response from Jeanette Doll. FEMA is listed as taking over "collection bottles for water testing." This was also discussed in my phone discussion with her this morning.

## Tara Premoe

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:48 AM  
**To:** Lundy, Anastasia (DEQ); Premoe, Tara (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Ah... I see where the confusion lies. They have taken over purchases of **Drinking Water**. Not test kit bottles.

---

**From:** Lundy, Anastasia (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:33 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

(including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*  
*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:32 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB)  
**Subject:** RE: Conference Call ref. Purchases

Hi Jen,

This is opposite from the phone conversation I just had with Jeanette Doll and emails that FEMA will be taking over the water bottles. We have several orders pending with VWR for bottles, some shipping Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

## Tara Premoe

Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:26 AM  
**To:** Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Subject:** Conference Call ref. Purchases

Can we have a conference call today to discuss? As far as purchasing goes. The lab is still making all of their purchases. This includes test bottles, labels, etc. as this is an activity being conducted for DEQ, not a provision of life services to the public. At times the SEOC rep is involved because it is after hours, on a weekend or like this week, a holiday where shipping needed to be expedited. We should not run into this problem again from here on out as we have provided clearer direction to Command Staff in the SEOC on our target numbers per George Krisztian.

All billing should still be going through the laboratory or RRD as always. If we need resources that our vendors cannot supply then we get with DTMB and possibly FEMA. We should be getting more direction here today on what and when FEMA will be integrating.

F/Lt. Jen Wolf  
SEOC OPS Health and Env MDEQ  
SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)

---

**From:** Calahan, Heather (DTMB)  
**Sent:** Thursday, January 21, 2016 3:56 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** just an idea starter

Chief Procurement Officer

- Identifies a lead in this office for correspondence on Flint emergency
- Coordinates statewide purchasing of Flint emergency
- 

DTMB Central Purchasing Lead

- Point of contact for Flint Purchasing
- Responsible for coordinating statewide purchasing needs
- Point of contact for lead purchasing at each agency (see below)
- 

Department Director

- Identifies a lead at each department responsible for Flint Purchasing
- Communication from director to all staff that all purchasing is made by lead at department (this includes business and not business hour requirements)

Department Purchasing Lead

- Works with end users who have need
- Documents all purchases related to emergency
- Maintains contact with DTMB Central Purchasing (how often)

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 5:10 PM  
**To:** Brownlee, Jeff (DTMB)  
**Cc:** Maynard, Sharon (DTMB)  
**Subject:** FW: Flint - agency purchasing managers

FYI. To clarify, I had suggested, stopped short of saying "would" but here's the feedback....

-----Original Message-----

From: Doll, Jeanette (DTMB)  
Sent: Thursday, January 21, 2016 4:58 PM  
To: Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
Cc: Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>  
Subject: RE: Flint - agency purchasing managers

Rebecca -

I mentioned during our morning briefing that you be reaching out to the purchasing managers - Captain was very pleased!!

Some items we have noticed within the SEOC:

During an emergency what processes need to be followed P-card purchase versus a contract purchase Communication with agency emergency management coordinator in the SEOC What assistance DTMB can provide (Buyers) Tracking of all purchases

Jeanette

-----Original Message-----

From: Cook, Rebecca (DTMB)  
Sent: Wednesday, January 20, 2016 1:41 PM  
To: Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>  
Cc: Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>  
Subject: FW: Flint - agency purchasing managers

Jeanette

My leadership is getting questions from agency purchasing managers regarding instructions and protocols to purchase for the emergency response.

I will be having conference calls - would one or both of you liked to be involved in a) developing the talking points to emphasize with them and b) being in the calls?

Rebecca

-----Original Message-----

From: Maynard, Sharon (DTMB)  
Sent: Wednesday, January 20, 2016 1:18 PM



To: Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
Subject: Flint

Questions/Discussions in PLT...

1. Do we Dtmb or other agencies always issue POs for purchases PRIOR to receiving goods or allowing ordering verbally....or are emergency pos been issued after the fact?
2. Is there any accountability or record keeping for all orders issued by agencies and us?
3. Is it true Home Depot we have \$20M?
4. What is FEMA's role regarding purchasing?
5. How are we communicating to other agencies?
6. Has there been any direction re: what agencies are to be tracking.....including overtime? What have we tracked for Dtmb central.

Mdoc and DHHS asking questions.

May suggest quick call between Dtmb and mdoc DHhs, plus others? Thx.

Sent from my iPad

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, January 22, 2016 6:39 AM  
**To:** Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB)  
**Subject:** Fwd: EPA taking over water testing

FYI

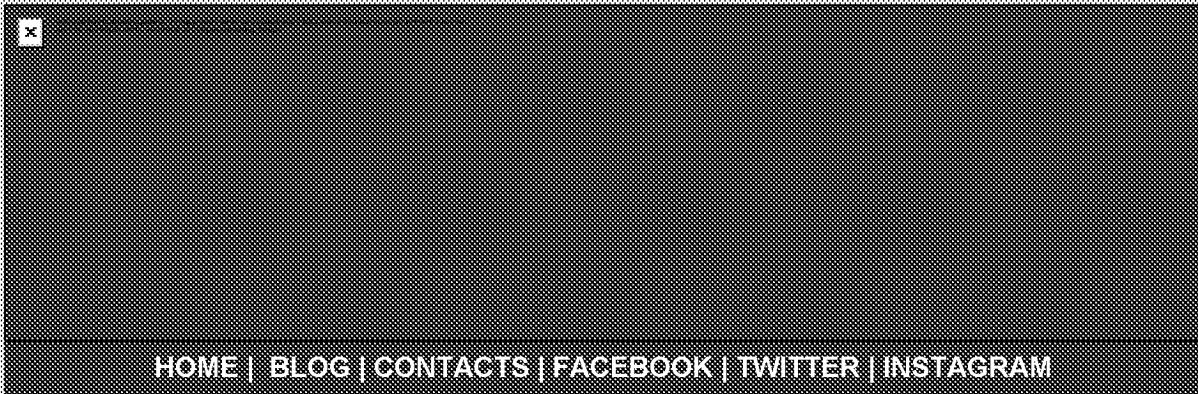
Begin forwarded message:

**From:** <CookR6@michigan.gov>  
**Date:** January 22, 2016 at 6:15:53 AM EST  
**To:** <SambiagioM@michigan.gov>  
**Cc:** <dollj@michigan.gov>, <epkeya@michigan.gov>, <christensenc4@michigan.gov>  
**Subject:** EPA taking over water testing

Per this mornings news, the EPA is taking over water testing in Flint. Can we establish scope and timing so that we can determine whether any pending orders for water sampling bottles should be canceled?

Melissa, please forward to Tara. Her email is not coming up in my iPhone.

**From:** Governor's Office <governorsoffice@govsubscriptions.michigan.gov>  
**Sent:** Friday, January 22, 2016 12:42 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** "He's his own best spokesman"

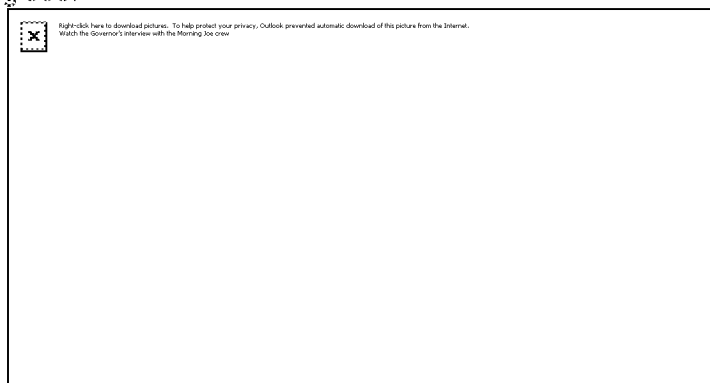


## How we are fixing the Flint water crisis

Governor Rick Snyder has committed to spending the rest of his time as Governor to fixing the Flint water crisis. Over the last few days, he has sat down to explain what happened and how we're fixing the Flint water crisis. Watch the interviews below and be sure to read the Governor's Op-Ed in the USA Today.

### Governor Snyder on Morning Joe

"What is so frustrating and what makes you so angry is you have a handful of experts who were career civil servants that made terrible decisions, in my view. We have to live with the consequences, and they worked for me, so I accept that responsibility. We are going to fix this problem." Watch Governor Snyder address how we are fixing the Flint water crisis on Morning Joe.



### Governor Snyder with Charlie LeDuff on Fox 2 Detroit

"I feel awful about this. These are people. They've been harmed. You can't feel good about that. The people of Flint have been harmed and a major influence of that harm came from people who worked for me, and I feel responsible for that. But I am committed

to solving the problem and addressing the damage as much as possible for the rest of the time I'm Governor." Watch Governor Snyder address the Flint water crisis with Charlie LeDuff on Fox 2 News.



---

## Governor Snyder's 2016 State of the State

"Michiganders don't quit, we don't give up, instead we will work with even more passion and commitment to truly improve our state. For everyone who's chosen to make Michigan their home, this is more than a promise, this is my commitment." Watch Governor Snyder's full closing statement from his 2016 State of the State address.



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## Governor in USA Today: "I will fix this, and I mean it."



"Residents in one of Michigan's proud cities cannot drink their water. That's unacceptable. The crisis in Flint arose from missteps at all levels of government — local, state and federal. But as governor, I take responsibility for what these families are going through, and I'm holding people in my administration accountable for their failures." Click [here](#) to read the Governor's full op-ed.

---

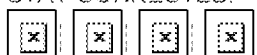
## Washington Post: "Michigan Gov. Rick Snyder is in a tough spot, but he's his own best spokesman"

Snyder has born the brunt of criticism in the local health crisis that has turned into a national scandal. But unlike many other politicians facing crises of leadership, Snyder may also be his own best counter-programming. [Click here to read the full story in the Washington Post.](#)



**Visit [HelpForFlint.com](http://HelpForFlint.com) to learn how you can help Flint residents.**

STAY CONNECTED:



SUBSCRIBER SERVICES:

[Manage Preferences](#) | [Unsubscribe](#) | [Help](#)

---

This email was sent to [brownleej@michigan.gov](mailto:brownleej@michigan.gov) on behalf of: The Executive Office of the Governor · 111 South Capitol Avenue · Lansing, MI 48909 · 517-336-7858

---

**From:** State of Michigan <MISOM@govsubscriptions.michigan.gov>  
**Sent:** Friday, January 22, 2016 4:30 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Flint Volunteer Efforts



Dear State Employees,

Gov. Rick Snyder and I want to thank everyone who donated their time during the holiday weekend to deliver bottled water, water filters, replacement cartridges and water testing kits to families in the city of Flint. We are working hard to ensure all residents are provided with the safe water resources they need, and each donation and hour of your time volunteered goes a long way.

For employees who would like to help the residents of Flint, there are several opportunities to do so. Please visit [www.helpforflint.com](http://www.helpforflint.com) to learn how you can help.

For additional information and updates, visit [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater).

Again, thank you for all your support.

Sincerely, Mike Zimmer  
Office of Good Government Director  
Dept. of Licensing and Regulatory Affairs Director

---

This e-mail was sent to [brownleej@michigan.gov](mailto:brownleej@michigan.gov) using GovDelivery on behalf of: the State of Michigan, 111 S. Capitol Ave., Lansing, MI. *You are receiving this message because you are a State of Michigan employee.*

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Sunday, January 24, 2016 7:57 PM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Stephen, Kimberly (DHHS); Maynard, Sharon (DTMB); Sambiagio, Melissa (DTMB); Brownlee, Jeff (DTMB)  
**Subject:** Re: GCHD BL Testing Kits and Supplies- CORRECTION

Chris

The SEOC called me yesterday afternoon regarding a need for blood testing kits, but didn't have a make/model for Procurement to research, and agreed to call the clinic back for more information. The SEOC called back after 3:30 and said this could wait until Monday, as these were needed for a clinic in two weeks. They did not mention other supplies. In the intervening time I had texted Jeff B for your cell, and he referred me to Farah. Farah and I spoke, and she was going to involve DHHS purchasing. Meanwhile, I also asked my lab buyer, Melissa Sambiagio, to review state contracts first thing Monday morning, and reach out to DHHS purchasing to discuss sourcing. Melissa is copied so that she can review the items list.

Is this plan adequate, or do you require action tonight?

For emergencies, please call my cell instead of email.

Rebecca  
517-930-4015

On Jan 24, 2016, at 4:33 PM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Rebecca,

Is there a statewide contract we can utilize to purchase blood lead testing supplies for the Genesee County Local Health Department. The list of supplies is attached. Consider this an urgent need, associated with the Flint water state of emergency.

Thanks,

Chris

---

**From:** Stephen, Kimberly (DHHS)  
**Sent:** Sunday, January 24, 2016 10:56 AM  
**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Subject:** Fwd: GCHD BL Testing Kits and Supplies- CORRECTION

What are your thoughts on the best way to get these supplies to GCHD?

Sent from my iPad

Begin forwarded message:

**From:** "Scott, Jackie (DHHS)" <ScottJ14@michigan.gov>  
**Date:** January 24, 2016 at 8:48:40 AM EST  
**To:** "Stephen, Kimberly (DHHS)" <STEPHENK@michigan.gov>  
**Cc:** "Scott, Linda (DHHS)" <ScottL12@michigan.gov>, "Fleming, Denise (DHHS)" <FlemingD7@michigan.gov>, "Wahl, Kathy (DHHS)" <WahlK@michigan.gov>, "Dunkle, Katie (DHHS)" <DunkleK@michigan.gov>  
**Subject:** FW: GCHD BL Testing Kits and Supplies- CORRECTION

Kim,

There is a correction, the fourth line for medium latex free/powder free gloves should be 10 cases, not boxes.

Thanks,  
Jackie

Jacqueline S. Scott, D.V.M., Ph.D.  
Director, Bureau of EMS, Trauma and Preparedness  
Michigan Department of Health and Human Services  
Telephone 517-335-8150  
Cell 517-749-4336  
Fax 517-335-9434

<GCHD\_LeadTestingResourceRequestjs.docx>



---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Sunday, January 24, 2016 7:57 PM  
**To:** Sambiagio, Melissa (DTMB)  
**Cc:** Maynard, Sharon (DTMB); Brownlee, Jeff (DTMB)  
**Subject:** Fwd: GCHD BL Testing Kits and Supplies- CORRECTION  
**Attachments:** GCHD\_LeadTestingResourceRequestjs.docx; ATT00001.htm

Here's the items list, in the attachment, below.

Begin forwarded message:

**From:** "Sanches, Christine (DHHS)" <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Date:** January 24, 2016 at 4:32:59 PM EST  
**To:** "Cook, Rebecca (DTMB)" <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** "Stephen, Kimberly (DHHS)" <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>, "Stephen, Kimberly (DHHS)" <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>, "Maynard, Sharon (DTMB)" <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** FW: GCHD BL Testing Kits and Supplies- CORRECTION

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Chris

---

**From:** Stephen, Kimberly (DHHS)  
**Sent:** Sunday, January 24, 2016 10:56 AM  
**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
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**Cc:** "Scott, Linda (DHHS)" <[ScottL12@michigan.gov](mailto:ScottL12@michigan.gov)>, "Fleming, Denise (DHHS)" <[FlemingD7@michigan.gov](mailto:FlemingD7@michigan.gov)>, "Wahl, Kathy (DHHS)" <[WahlK@michigan.gov](mailto:WahlK@michigan.gov)>, "Dunkle,

Katie (DHHS)" <[DunkleK@michigan.gov](mailto:DunkleK@michigan.gov)>

**Subject: FW: GCHD BL Testing Kits and Supplies- CORRECTION**

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Jacqueline S. Scott, D.V.M., Ph.D.  
Director, Bureau of EMS, Trauma and Preparedness  
Michigan Department of Health and Human Services  
Telephone 517-335-8150  
Cell 517-749-4336  
Fax 517-335-9434

**Genesee County Health Department – Resource Requests 1/23/16**

**Below Data pulled from MICIMS Requests**

---

**Requesting POC:**

Chris DeVriendt  
Genesee County Emergency Manager  
810-627-8893

**Delivery Location:**

Genesee County Health Department  
G3373 S. Saginaw  
Burton, MI 48529

**Items:**

<b>Item Description</b>	<b>Manufacturer</b>	<b>Quantity</b>	<b>Notes</b>
Lead Care Test Kit for blood lead level testing	Magellan Diagnostics	100 Boxes	48/box
Lead Care Analyzer Labels	Magellan Diagnostics	50 Boxes	
Large Latex Free/Powder Free Gloves		5 Cases	
Medium Latex Free/Powder Free Gloves		10 cases	
Micro-cuvettes		10 Cases	
1" x 1" Gauze Squares		5 Cases	
Plastic Backed Table Cover		10 Cases	
Mini Band-Aids		1 Case	
Alcohol Prep Pads		2 Cases	
Band-Aids		9 Cases	

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Sunday, January 24, 2016 8:06 PM  
**To:** Cieciva, Sue (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Sanches, Christine (DHHS)  
**Subject:** Fwd: GCHD BL Testing Kits and Supplies- CORRECTION  
**Attachments:** GCHD\_LeadTestingResourceRequestjs.docx; ATT00001.htm

Sue

Please get this list to J&B first thing Monday as a rush request. Need price and lead times. Work with DHHS Purchasing, who would be issuing the PO. Melissa will conduct concurrent research with VWR, just in case. Hopefully one or both vendors sell all items.

Make sure to ask J&B for a 24/7 phone number in case there are more rush requests.

Rebecca

Begin forwarded message:

**From:** "Sanches, Christine (DHHS)" <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Date:** January 24, 2016 at 4:32:59 PM EST  
**To:** "Cook, Rebecca (DTMB)" <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** "Stephen, Kimberly (DHHS)" <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>, "Stephen, Kimberly (DHHS)" <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>, "Maynard, Sharon (DTMB)" <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** FW: GCHD BL Testing Kits and Supplies- CORRECTION

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Thanks,

Chris

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**Sent:** Sunday, January 24, 2016 10:56 AM  
**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
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**Date:** January 24, 2016 at 8:48:40 AM EST  
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**Cc:** "Scott, Linda (DHHS)" <[ScottL12@michigan.gov](mailto:ScottL12@michigan.gov)>, "Fleming, Denise (DHHS)" <[FlemingD7@michigan.gov](mailto:FlemingD7@michigan.gov)>, "Wahl, Kathy (DHHS)" <[WahlK@michigan.gov](mailto:WahlK@michigan.gov)>, "Dunkle, Katie (DHHS)" <[DunkleK@michigan.gov](mailto:DunkleK@michigan.gov)>  
**Subject:** FW: GCHD BL Testing Kits and Supplies- CORRECTION

Kim,

There is a correction, the fourth line for medium latex free/powder free gloves should be 10 cases, not boxes.

Thanks,  
Jackie

Jacqueline S. Scott, D.V.M., Ph.D.  
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<b>Item Description</b>	<b>Manufacturer</b>	<b>Quantity</b>	<b>Notes</b>
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Large Latex Free/Powder Free Gloves		5 Cases	
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Micro-cuvettes		10 Cases	
1" x 1" Gauze Squares		5 Cases	
Plastic Backed Table Cover		10 Cases	
Mini Band-Aids		1 Case	
Alcohol Prep Pads		2 Cases	
Band-Aids		9 Cases	

---

**From:** Maynard, Sharon (DTMB)  
**Sent:** Sunday, January 24, 2016 8:28 PM  
**To:** Cook, Rebecca (DTMB)  
**Cc:** Brownlee, Jeff (DTMB)  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Thanks Rebecca!

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Sunday, January 24, 2016 8:24 PM  
**To:** Maynard, Sharon (DTMB); Stephen, Kimberly (DHHS)  
**Cc:** Stephen, Kimberly (DHHS); Sanches, Christine (DHHS); Brownlee, Jeff (DTMB)  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Kim

To clarify, DTMB Procurement is not in a position to track usage and spend, so we are unable to assist in your response to MSP. Please work with Jeanette and Chris. The SEOC has asked everyone to track receipts and enter them into MySims software.

Buyer Steve Rigg is involved to the extent that Home Depot is asking questions about unpaid invoices, and Steve facilitated getting invoice copies and a meeting set up. The State is running close to its account credit limit with Home Depot and needs invoices cleared for payment.

We are still seeking clarification on the new FEMA process, and anticipate more information next week.

I'm happy to talk more on Monday, but thought you may also need an immediate response.

Please call my cell for any emergency requests, instead of or in addition to email.

Rebecca  
517-930-4015

On Jan 24, 2016, at 4:34 PM, Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)> wrote:

Kim Sorry just getting to Friday's emails!

I am copying Rebecca and she can comment but also be aware that we are looking to have staff coordinate with the SEOC and communication will be addressed as it is confusing. Please feel free to reach out to Chris and Jeanette at anytime tho.

**From:** Stephen, Kimberly (DHHS)  
**Sent:** Friday, January 22, 2016 11:09 AM  
**To:** Maynard, Sharon (DTMB)  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Hi Sharon,

Would it be possible for Rebecca to include me in her communication on this important matter? It is not clear to me from the e-mail below if she is still seeking clarification on this issue or if I should contact to Jeanette Doll and Chris Christensen myself to obtain answers.

We have received the following request from State Police for information:

**From:** MSP-seocfgc  
**Sent:** Wednesday, January 20, 2016 4:23 PM  
**To:** Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>  
**Subject:** Costs for City of Flint

Hi Susan:

Richard Thelen gave me your name as his financial point of contact at DHHS. The immediate need is information on the costs incurred by DHHS for water, water filters, and replacement cartridges. FEMA has asked for this information – even if some of the figures are an estimate – so they have a ballpark idea.

If you could get some numbers to me tomorrow, I'd appreciate it. Please include all of your costs related to Flint, including those that were paid for with the special appropriation that you received in October. I will be providing some guidance on how costs should be tracked for state disaster assistance and possible federal assistance.

If you have any questions, please let me know.

Thanks,  
Penny Burger

Michigan State Police  
Emergency Operations Center  
Financial Section Chief  
(517)336-2688

Kim

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Thursday, January 21, 2016 1:39 PM  
**To:** Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:54 PM  
**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Sheryl likely already provided you an update, but just in case she did not...



---

**From:** Thompson, Sheryl D. (DHHS)  
**Sent:** Thursday, January 21, 2016 12:36 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Thelen, Richard (DHHS) <[ThelenR4@michigan.gov](mailto:ThelenR4@michigan.gov)>  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Hi Steve, in the very beginning October I would send 319 to budget to process and order products from Home Depot.

As product begin getting scarce I began working directly with David as to what we needed vs what was available etc. then I would complete the PO but budget always knew what was coming.

When SEOC and got involved Richard or Brian would ask me to order products to maintain consistency and to continue working with David.

I also have a financial specialist Jeff Sanford who works with me and prepares the 319 for processing for all the filter orders.

He received all of the invoices from Home Depot for the product that we received under our existing POs. He will go through and consolidate the product received with our tracking spreadsheet and signed 319s. Once That is completed he can create a payment voucher for Home Depot to get paid.

I also just got a message from David that he has 12,000 Brita filters available. He needs direction as to what we want.

I am not approving any orders at this time per directions that FEMA is now ordering.

I'm am available to do whatever is needed.

Sheryl Thompson  
Deputy Director of Field Operations  
Dept of Health & Human Services  
235 S. Grand Ave, Ste 1413  
Lansing, MI 48909  
517-241-5954

On Jan 21, 2016, at 11:36 AM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

Chris/Jeanette,

My questions only pertain to Home Depot and the procurement of water filters, bottled water, and supplies needed for repairs. I'm trying to sort out the confusion that David from Home Depot and I have regarding the procurement of these items and the processing of payments. We need to finalize a fluid process for this so that we can avoid further confusion. I

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11. LARA recently purchased items from Home Depot for plumbing supplies. Moving forward, if LARA is to procure any more items through Home Depot can they work directly with David from Home Depot so as to not cause any more delays?

That is all I have at this point. Thanks for any feedback.

***Steve Rigg***

Buyer, Commodities Division

DTMB-Procurement

(517)284-7043

[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

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**From:** Stephen, Kimberly (DHHS)  
**Sent:** Sunday, January 24, 2016 9:08 PM  
**To:** Cook, Rebecca (DTMB)  
**Cc:** Maynard, Sharon (DTMB); Sanches, Christine (DHHS); Brownlee, Jeff (DTMB)  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Thank you for the reply tonight. I am not expecting assistance in formulating a response to MSP but rather wanted to make you aware of the request to avoid duplicate reporting. There are many people involved and it is very confusing as to who is responsible for what. The more we can keep the lines of communications open the better. Please include DHHS in any meeting on Home Depot invoice payments since we will be ultimately responsible. We can talk in more detail on Monday.

Sent from my iPhone

On Jan 24, 2016, at 8:24 PM, Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)> wrote:

Kim

To clarify, DTMB Procurement is not in a position to track usage and spend, so we are unable to assist in your response to MSP. Please work with Jeanette and Chris. The SEOC has asked everyone to track receipts and enter them into MySims software.

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I'm happy to talk more on Monday, but thought you may also need an immediate response.

Please call my cell for any emergency requests, instead of or in addition to email.

Rebecca  
517-930-4015

On Jan 24, 2016, at 4:34 PM, Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)> wrote:

Kim Sorry just getting to Friday's emails!

I am copying Rebecca and she can comment but also be aware that we are looking to have staff coordinate with the SEOC and communication will be addressed as it is confusing. Please feel free to reach out to Chris and Jeanette at anytime tho.

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**From:** Stephen, Kimberly (DHHS)  
**Sent:** Friday, January 22, 2016 11:09 AM  
**To:** Maynard, Sharon (DTMB)  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Hi Sharon,

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We have received the following request from State Police for information:

**From:** MSP-seocfgc  
**Sent:** Wednesday, January 20, 2016 4:23 PM  
**To:** Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>  
**Subject:** Costs for City of Flint

Hi Susan:

Richard Thelen gave me your name as his financial point of contact at DHHS. The immediate need is information on the costs incurred by DHHS for water, water filters, and replacement cartridges. FEMA has asked for this information – even if some of the figures are an estimate – so they have a ballpark idea.

If you could get some numbers to me tomorrow, I'd appreciate it. Please include all of your costs related to Flint, including those that were paid for with the special appropriation that you received in October. I will be providing some guidance on how costs should be tracked for state disaster assistance and possible federal assistance.

If you have any questions, please let me know.

Thanks,  
Penny Burger

Michigan State Police  
Emergency Operations Center  
Financial Section Chief  
(517)336-2688

Kim

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Thursday, January 21, 2016 1:39 PM  
**To:** Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:54 PM

**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Sheryl likely already provided you an update, but just in case she did not...

---

**From:** Thompson, Sheryl D. (DHHS)  
**Sent:** Thursday, January 21, 2016 12:36 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Thelen, Richard (DHHS) <[ThelenR4@michigan.gov](mailto:ThelenR4@michigan.gov)>  
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Hi Steve, in the very beginning October I would send 319 to budget to process and order products from Home Depot.

As product begin getting scarce I began working directly with David as to what we needed vs what was available etc. then I would complete the PO but budget always knew what was coming.

When SEOC and got involved Richard or Brian would ask me to order products to maintain consistency and to continue working with David.

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He received all of the invoices from Home Depot for the product that we received under our existing POs. He will go through and consolidate the product received with our tracking spreadsheet and signed 319s. Once That is completed he can create a payment voucher for Home Depot to get paid.

I also just got a message from David that he has 12,000 Brita filters available. He needs direction as to what we want.

I am not approving any orders at this time per directions that FEMA is now ordering.

I'm am available to do whatever is needed.

Sheryl Thompson  
Deputy Director of Field Operarions  
Dept of Health & Human Services  
235 S. Grand Ave, Ste 1413  
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That is all I have at this point. Thanks for any feedback.

***Steve Rigg***

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<8970195.pdf>



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**From:** Cook, Rebecca (DTMB)  
**Sent:** Monday, January 25, 2016 8:02 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB)  
**Subject:** FW: Blood Lead Testing Supplies - Flint Water - RUSH

Chris

FYI, J&B -- the statewide medical supplies vendor -- has confirmed they are researching price and lead times.

I'll check in with Melissa next on VWR's status as well.

Rebecca

---

**From:** Julian Shaya [<mailto:jshaya@jandbmedical.com>]  
**Sent:** Monday, January 25, 2016 7:59 AM  
**To:** Cieciva, Sue (DTMB) <[ciecivas@michigan.gov](mailto:ciecivas@michigan.gov)>; Chris Respondek <[crespondek@jandbmedical.com](mailto:crespondek@jandbmedical.com)>  
**Cc:** Dunn, Kevin (DHHS) <[dunnk3@michigan.gov](mailto:dunnk3@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** RE: Blood Lead Testing Supplies - Flint Water - RUSH

Hi Sue, we are on it and will respond shortly. Tks!

---

**From:** Cieciva, Sue (DTMB) [<mailto:ciecivas@michigan.gov>]  
**Sent:** Monday, January 25, 2016 7:55 AM  
**To:** Julian Shaya; Chris Respondek  
**Cc:** Dunn, Kevin (DHHS); Cook, Rebecca (DTMB)  
**Subject:** Blood Lead Testing Supplies - Flint Water - RUSH  
**Importance:** High

Please see attached list of blood lead testing supplies for the Genesee County Local Health Department. Consider this an urgent need, associated with the Flint water state of emergency.

We will need pricing and lead times. If you have any questions on the products requested, please let me know.

The agency, DHHS will issue a PO release against J & B Medical Contract No. 07184300126.

Thank you.

Sue

*Sue Cieciva*

**Buyer Specialist**

State of Michigan : DTMB – Procurement  
Constitution Hall, 1<sup>st</sup> Floor, NE  
525 West Allegan, Lansing, Michigan 48933

[ciecivas@michigan.gov](mailto:ciecivas@michigan.gov)  
517-284-7007



HELP. CONNECT. SOLVE.

---

**From:** Rigg, Steve (DTMB)  
**Sent:** Monday, January 25, 2016 8:56 AM  
**To:** Cook, Rebecca (DTMB);Stephen, Kimberly (DHHS)  
**Cc:** Maynard, Sharon (DTMB);Sanches, Christine (DHHS);Brownlee, Jeff (DTMB);Thompson, Sheryl D. (DHHS);Sanford, Jeffery (DHHS)  
**Subject:** RE: Flint Issue Questions from DTMB Procurement

Kim,

There wasn't an actual meeting with Home Depot and DHHS. Last week on Thursday I sent all the receipts and invoices from Home Depot to Jeff Sanford at DHHS. I got Jeff connected with David Khanuja from Home Depot and they have been working through those invoices and Jeff is consolidating that information.

**FEMA** – FYI. I have been informed from Home Depot that someone from FEMA ordered approximately \$330,000 worth of filters last week and approximately another \$1,000,000 worth of filters on Saturday night.

*Steve Rigg*

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)



HELP. CONNECT. SOLVE.

---

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**Subject:** Re: Flint Issue Questions from DTMB Procurement

Kim - Will do.

Steve - can you please let Kim know which DHHS employees were present at the last Home Depot meeting, and copy her on emails relative to invoices in the future? Thank you for this and all of your hard work.

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**Cc:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Thelen, Richard (DHHS) <[ThelenR4@michigan.gov](mailto:ThelenR4@michigan.gov)>  
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**From:** Sambiagio, Melissa (DTMB)  
**Sent:** Monday, January 25, 2016 8:58 AM  
**To:** Cook, Rebecca (DTMB); Cieciwa, Sue (DTMB)  
**Cc:** Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Sanches, Christine (DHHS)  
**Subject:** RE: GCHD BL Testing Kits and Supplies- CORRECTION

Rebecca:

There are a few different types of LeadCare® testing devices, micro-cuvettes are brand/model specific, and there are multiple sizes/pricing in the plastic backed table covers. Sue has spoken with J&B and forwarded a request to Chris Sanches for more information. Once the specifications are clarified, we will be able to get details regarding price and lead time. I have contacted VWR to see if they are able to procure this type specific manufacturer's product.

We'll keep you posted.

*Melissa Sambiagio*

State of Michigan  
Department of Technology, Management and Budget  
Procurement – Commodities Division  
Constitution Hall, 1-N  
525 West Allegan Street  
Lansing, Michigan 48933  
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855-647-8724 Toll Free Customer Service  
517-335-0046 Facsimile  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

Website: [www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)  
Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)



**HELP. CONNECT. SOLVE.**

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Sunday, January 24, 2016 8:06 PM  
**To:** Cieciwa, Sue (DTMB) <[cieciwas@michigan.gov](mailto:cieciwas@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Subject:** Fwd: GCHD BL Testing Kits and Supplies- CORRECTION

Sue

Please get this list to J&B first thing Monday as a rush request. Need price and lead times. Work with DHHS Purchasing, who would be issuing the PO. Melissa will conduct concurrent research with VWR, just in case. Hopefully one or both vendors sell all items.

Make sure to ask J&B for a 24/7 phone number in case there are more rush requests.

Rebecca

Begin forwarded message:

**From:** "Sanches, Christine (DHHS)" <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Date:** January 24, 2016 at 4:32:59 PM EST  
**To:** "Cook, Rebecca (DTMB)" <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** "Stephen, Kimberly (DHHS)" <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>, "Stephen, Kimberly (DHHS)" <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>, "Maynard, Sharon (DTMB)" <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** FW: GCHD BL Testing Kits and Supplies- CORRECTION

Rebecca,

Is there a statewide contract we can utilize to purchase blood lead testing supplies for the Genesee County Local Health Department. The list of supplies is attached. Consider this an urgent need, associated with the Flint water state of emergency.

Thanks,

Chris

---

**From:** Stephen, Kimberly (DHHS)  
**Sent:** Sunday, January 24, 2016 10:56 AM  
**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Subject:** Fwd: GCHD BL Testing Kits and Supplies- CORRECTION

What are your thoughts on the best way to get these supplies to GCHD?

Sent from my iPad

Begin forwarded message:

**From:** "Scott, Jackie (DHHS)" <[ScottJ14@michigan.gov](mailto:ScottJ14@michigan.gov)>  
**Date:** January 24, 2016 at 8:48:40 AM EST  
**To:** "Stephen, Kimberly (DHHS)" <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>  
**Cc:** "Scott, Linda (DHHS)" <[ScottL12@michigan.gov](mailto:ScottL12@michigan.gov)>, "Fleming, Denise (DHHS)" <[FlemingD7@michigan.gov](mailto:FlemingD7@michigan.gov)>, "Wahl, Kathy (DHHS)" <[WahlK@michigan.gov](mailto:WahlK@michigan.gov)>, "Dunkle, Katie (DHHS)" <[DunkleK@michigan.gov](mailto:DunkleK@michigan.gov)>  
**Subject:** FW: GCHD BL Testing Kits and Supplies- CORRECTION

Kim,

There is a correction, the fourth line for medium latex free/powder free gloves should be 10 cases, not boxes.

Thanks,  
Jackie

Jacqueline S. Scott, D.V.M., Ph.D.

Director, Bureau of EMS, Trauma and Preparedness  
Michigan Department of Health and Human Services  
Telephone 517-335-8150  
Cell 517-749-4336  
Fax 517-335-9434

---

**From:** Stephen, Kimberly (DHHS)  
**Sent:** Monday, January 25, 2016 10:12 AM  
**To:** Rigg, Steve (DTMB)  
**Cc:** Cook, Rebecca (DTMB); Maynard, Sharon (DTMB); Sanches, Christine (DHHS); Brownlee, Jeff (DTMB); Thompson, Sheryl D. (DHHS); Sanford, Jeffery (DHHS)  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Awesome! Jeff Sanford is the right person to be working on the invoices. He and I had several conversations on Friday and will continue to work together on the reconciliation.

Appreciate the FEMA the update. It is so very helpful. Do we know where the FEMA filters are being delivered and if/how the receipt of the filters is being tracked? I assume that DHHS will at some point will receive a billing for 25% of the FEMA filter bill so I want to ensure we are tracking receipt of the product. Do we have any confirmation on how the financial reimbursement to FEMA will work? If you are not the correct person to answer these questions, please point me in the right direction.

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**FEMA** – FYI. I have been informed from Home Depot that someone from FEMA ordered approximately \$330,000 worth of filters last week and approximately another \$1,000,000 worth of filters on Saturday night.

*Steve Rigg*

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

<image002.png>

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**Subject:** Re: Flint Issue Questions from DTMB Procurement

Kim - Will do.

Steve - can you please let Kim know which DHHS employees were present at the last Home Depot meeting, and copy her on emails relative to invoices in the future? Thank you for this and all of your hard work.

On Jan 24, 2016, at 9:08 PM, Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)> wrote:

Thank you for the reply tonight. I am not expecting assistance in formulating a response to MSP but rather wanted to make you aware of the request to avoid duplicate reporting. There are many people involved and it is very confusing as to who is responsible for what. The more we can keep the lines of communications open the better. Please include DHHS in any meeting on Home Depot invoice payments since we will be ultimately responsible. We can talk in more detail on Monday.

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Buyer Steve Rigg is involved to the extent that Home Depot is asking questions about unpaid invoices, and Steve facilitated getting invoice copies and a meeting set up. The State is running close to its account credit limit with Home Depot and needs invoices cleared for payment.

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I'm happy to talk more on Monday, but thought you may also need an immediate response.

Please call my cell for any emergency requests, instead of or in addition to email.

Rebecca  
517-930-4015

On Jan 24, 2016, at 4:34 PM, Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)> wrote:

Kim Sorry just getting to Friday's emails!

I am copying Rebecca and she can comment but also be aware that we are looking to have staff coordinate with the SEOC and communication will be addressed as it is confusing. Please feel free to reach out to Chris and Jeanette at anytime tho.

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**From:** Stephen, Kimberly (DHHS)  
**Sent:** Friday, January 22, 2016 11:09 AM  
**To:** Maynard, Sharon (DTMB)  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Hi Sharon,

Would it be possible for Rebecca to include me in her communication on this important matter? It is not clear to me from the e-mail below if she is still seeking clarification on this issue or if I should contact to Jeanette Doll and Chris Christensen myself to obtain answers.

We have received the following request from State Police for information:

**From:** MSP-seocfgc  
**Sent:** Wednesday, January 20, 2016 4:23 PM  
**To:** Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>  
**Subject:** Costs for City of Flint

Hi Susan:

Richard Thelen gave me your name as his financial point of contact at DHHS. The immediate need is information on the costs incurred by DHHS for water, water filters, and replacement cartridges. FEMA has asked for this information – even if some of the figures are an estimate – so they have a ballpark idea.

If you could get some numbers to me tomorrow, I'd appreciate it. Please include all of your costs related to Flint, including those that were paid for with the special appropriation that you received in October. I will be providing some guidance on how costs should be tracked for state disaster assistance and possible federal assistance.

If you have any questions, please let me know.

Thanks,  
Penny Burger

Michigan State Police  
Emergency Operations Center  
Financial Section Chief  
(517)336-2688

Kim

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Thursday, January 21, 2016 1:39 PM  
**To:** Stephen, Kimberly (DHHS)  
<STEPHENK@michigan.gov>  
**Subject:** FW: Flint Issue Questions from DTMB  
Procurement

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**Sent:** Thursday, January 21, 2016 12:54 PM  
**To:** Sanches, Christine (DHHS)  
<SanchesC@michigan.gov>  
**Subject:** FW: Flint Issue Questions from DTMB  
Procurement

Sheryl likely already provided you an update, but just in case she did not...

---

**From:** Thompson, Sheryl D. (DHHS)  
**Sent:** Thursday, January 21, 2016 12:36 PM  
**To:** Rigg, Steve (DTMB) <RiggS@michigan.gov>  
**Cc:** Doll, Jeanette (DTMB) <dolli@michigan.gov>; Christensen, Chris (DTMB) <christensenc4@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Thelen, Richard (DHHS) <ThelenR4@michigan.gov>  
**Subject:** Re: Flint Issue Questions from DTMB  
Procurement

Hi Steve, in the very beginning October I would send 319 to budget to process and order products from Home Depot.

As product begin getting scarce I began working directly with David as to what we needed vs what was available etc. then I would complete the PO but budget always knew what was coming.



When SEOC and got involved Richard or Brian would ask me to order products to maintain consistency and to continue working with David.

I also have a financial specialist Jeff Sanford who works with me and prepares the 319 for processing for all the filter orders.

He received all of the invoices from Home Depot for the product that we received under our existing POs. He will go through and consolidate the product received with our tracking spreadsheet and signed 319s. Once That is completed he can create a payment voucher for Home Depot to get paid.

I also just got a message from David that he has 12,000 Brita filters available. He needs direction as to what we want.

I am not approving any orders at this time per directions that FEMA is now ordering.

I'm am available to do whatever is needed.

Sheryl Thompson  
Deputy Director of Field Operarions  
Dept of Health & Human Services  
235 S. Grand Ave, Ste 1413  
Lansing, MI 48909  
517-241-5954

On Jan 21, 2016, at 11:36 AM, Rigg, Steve (DTMB)  
<[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

Chris/Jeanette,

My questions only pertain to Home Depot and the procurement of water filters, bottled water, and supplies needed for repairs. I'm trying to sort out the confusion that David from Home Depot and I have regarding the procurement of these items and the processing of payments. We need to finalize a fluid process for this so that we

can avoid further confusion. I want to do everything I can to help, but I first need to understand the current process so I can direct what I have control over to the right people. I don't want there to be a disruption in the incoming flow of these items.

1. What is the current process for ordering these items? David from Home Depot is currently getting calls from a minimum of 4 different people.
2. Response: Sheryl had been the lead until EOC came on board.
3. What is FEMA's role in procuring these items? Apparently a FEMA rep called Brita directly to order filters. Home Depot has cornered the market on all filters from Brita and PUR, so it is suggested that we continue to work directly with David from Home Depot.
4. Response: I agree
5. If FEMA does take over the ordering of filters, water, and supplies, will they agree to work with Home Depot and who is the contact person that could work directly with David from Home Depot?

6. Will FEMA be creating contracts directly with manufacturers or will they utilize current contracted vendors?
7. If FEMA takes over, will they be paying invoices directly or will that continue to be done by the State?
8. What happens when FEMA leaves in 3 months? Good question
9. Who is responsible for entering Home Depot receipts into the MySimms tracking system so that David from Home Depot can send these receipts to that person directly? I have attached the receipts that I have received from Home Depot.
10. Right now Home Depot invoices are sent out monthly because of the 60 day terms in the contract. However, we currently have over \$10,000,000 in outstanding invoices. We had gotten CitiBank to increase our credit limit to \$10,000,000 last week. We requested CitiBank to increase the credit line to \$20,000,000, but that has not yet been approved by CitiBank. To keep the credit line open we need to turn around these invoices much quicker. Citi has an EFT program that a State designee could log into and pull invoices from immediately to get them paid. Who would be the person that Citi could set

up an account with so that they could log in and download invoices for quicker processing?

11. LARA recently purchased items from Home Depot for plumbing supplies. Moving forward, if LARA is to procure any more items through Home Depot can they work directly with David from Home Depot so as to not cause any more delays?

That is all I have at this point. Thanks for any feedback.

***Steve Rigg***

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

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**From:** Hatch, David (DTMB)  
**Sent:** Monday, January 25, 2016 12:27 PM  
**To:** Kelenske, Chris (MSP)  
**Cc:** Brownlee, Jeff (DTMB)  
**Subject:** DTMB-Procurement purchasing support for Flint Water Emergency Response...as assigned by Jeff Brownlee.

Hi Chris,

I left you a message a few minutes ago.

Jeff Brownlee has assigned me to help out on the purchasing side based on your conference call Friday with Jeff, Brom, and Kristi Etue.

I have talked with Chris Christensen (DTMB) and will reach out to Penny Berger (MSP), DHHS, DEQ, and other agencies to get a baseline understanding then get back to you.

If you have specific guidance for me or individuals to work with please let me know; otherwise I will work with the individuals above and from Jeff's guidance to:

- Understand the process/procedures for purchasing that all State agencies need to follow in this response
- Draft any necessary documentation
- Develop communications to the agency directors regarding process/procedures
- Understand how DTMB Procurement can support the agency SEOC representatives
- Communicate to the purchasing leaders of each agency

And any other procurement support I can offer.

Thanks,  
Dave

David Hatch  
DTMB – Procurement  
Constitution Hall – 1<sup>st</sup> Floor  
525 West Allegan  
Lansing, MI 48913  
Phone (517) 284-7044  
Fax (517) 335-0046  
[hatchd@michigan.gov](mailto:hatchd@michigan.gov)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)



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**From:** MSP-seocfgc  
**Sent:** Monday, January 25, 2016 1:31 PM  
**To:** Doll, Jeanette (DTMB); Rigg, Steve (DTMB); Cook, Rebecca (DTMB); Maynard, Sharon (DTMB); Sanches, Christine (DHHS); Brownlee, Jeff (DTMB); Thompson, Sheryl D. (DHHS); Sanford, Jeffery (DHHS); Thelen, Richard (DHHS)  
**Cc:** Burger, Penelope (MSP)  
**Subject:** RE: Flint Issue Questions from DTMB Procurement

I will do what I can to address some of these questions.

- 1) Since FEMA arrived on-site in the SEOC, they have been procuring the water resources made available through the federal emergency declaration; water, faucet filters, replacement cartridges, filtered pitchers and water testing kits. If going through an established state contract gets a better price, that is how they are ordering items. If they have a better deal or resource, that is what they do.
- 2) All resources are being delivered to the warehouse located at 4315 N. Clio Road in Flint. Michigan Department of Corrections has warehouse management staff in place to manage the warehouse operations. Receipt of all resources, regardless of who ordered them, is being checked in to the warehouse with packaging slips and I have copies of the FEMA order form as well. We don't do anything special with FEMA purchased resources.
- 3) The State of Michigan has a 25% match requirement for the FEMA dollars spent. DHHS will not get a bill for 25% of anything from FEMA. I work directly with FEMA on the finances through EMHSD as the State Financial Officer, and at this point we have FEMA assistance for 90 days. We are nowhere close to getting a bill from FEMA yet and that is something that I will take care of working with the State Budget Office as needed. I have never sent a bill for match to another state agency.
- 4) At this point in time, we only have a federal declaration of emergency that brings FEMA procured resources for 90 days beginning on the date of declaration, which was January 16, 2016. We don't have any other federal awards that would allow for reimbursement of items purchased before the federal declaration. We have a few requests out at the federal level, but it is a long process and there are no guarantees. Our guarantee is that FEMA will buy water and filters for 90 days.

What I need from state agency financial staff are current expenditures for costs for their own agency on a weekly basis so I can update the State Director here in the SEOC. Costs need to be directly related to the emergency, such as staff overtime in the SEOC or in the field responding to the event, contracts required for response, purchases for items necessary for use in the emergency response – water, filters, computers for field teams, etc, and fuel for vehicles. This is not an exhaustive list, but gives you the main items. And we have processes in place here in the SEOC for requesting resources to ensure that all items purchased are approved by SEOC command.

I hope this has answered some questions. The biggest assistance a state agency can provide from a financial aspect is weekly updated reports. If you still have questions, please let me know.

Penny Burger  
State Financial Officer  
State Emergency Operations Center  
MSP/EMHSD  
517-336-2688

---

**From:** Doll, Jeanette (DTMB)  
**Sent:** Monday, January 25, 2016 11:41 AM  
**To:** Burger, Penelope (MSP); MSP-seocfgc  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Penny –

Could someone in your shop assist DHHS with their questions below?

Jeanette

---

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**Sent:** Monday, January 25, 2016 10:12 AM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
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Michigan State Police  
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Deputy Director of Field Operarions  
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235 S. Grand Ave, Ste 1413  
Lansing, MI 48909  
517-241-5954

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1. What is the current process for ordering these items? David from Home Depot is currently getting calls from a minimum of 4 different people.
2. Response: Sheryl had been the lead until EOC came on board.
3. What is FEMA's role in procuring these items? Apparently a FEMA rep called Brita directly to order filters. Home Depot has cornered the market on all filters from Brita and PUR, so it is suggested that we continue to work directly with David from Home Depot.
4. Response: I agree
5. If FEMA does take over the ordering of filters, water, and supplies, will they agree to work with Home Depot and who is the contact person that could work directly with David from Home Depot?

6. Will FEMA be creating contracts directly with manufacturers or will they utilize current contracted vendors?
7. If FEMA takes over, will they be paying invoices directly or will that continue to be done by the State?
8. What happens when FEMA leaves in 3 months? Good question
9. Who is responsible for entering Home Depot receipts into the MySimms tracking system so that David from Home Depot can send these receipts to that person directly? I have attached the receipts that I have received from Home Depot.
10. Right now Home Depot invoices are sent out monthly because of the 60 day terms in the contract. However, we currently have over \$10,000,000 in outstanding invoices. We had gotten CitiBank to increase our credit limit to \$10,000,000 last week. We requested CitiBank to increase the credit line to \$20,000,000, but that has not yet been approved by CitiBank. To keep the credit line open we need to turn around these invoices much quicker. Citi has an EFT program that a State designee could log into and pull invoices from immediately to get them paid. Who would be the

person that Citi could set up an account with so that they could log in and download invoices for quicker processing?

11. LARA recently purchased items from Home Depot for plumbing supplies. Moving forward, if LARA is to procure any more items through Home Depot can they work directly with David from Home Depot so as to not cause any more delays?

That is all I have at this point. Thanks for any feedback.

***Steve Rigg***

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

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**From:** Hatch, David (DTMB)  
**Sent:** Monday, January 25, 2016 1:56 PM  
**To:** Sharon Maynard; Brownlee, Jeff (DTMB)  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Can you get me on this email chain, or at least get me introduced to Penny? After talking to Chris Christensen and his guy Ryan, they told me Penny is the person I should start with.

I feel urgency about my request to her, but I don't know if she does. Your help would be appreciated.

Thanks,  
Dave

---

**From:** Rigg, Steve (DTMB)  
**Sent:** Monday, January 25, 2016 1:51 PM  
**To:** Hatch, David (DTMB) <HatchD@michigan.gov>  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

I'm sure you'll get this sent to you a few times, but a lot of our questions are answered in this email.

*Steve Rigg*

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

**DTMB**  
**HELP. CONNECT. SOLVE.**

---

**From:** MSP-seocfgc  
**Sent:** Monday, January 25, 2016 1:31 PM  
**To:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Thompson, Sheryl D. (DHHS) <[ThompsonS2@michigan.gov](mailto:ThompsonS2@michigan.gov)>; Sanford, Jeffery (DHHS) <[SanfordJ3@michigan.gov](mailto:SanfordJ3@michigan.gov)>; Thelen, Richard (DHHS) <[ThelenR4@michigan.gov](mailto:ThelenR4@michigan.gov)>  
**Cc:** Burger, Penelope (MSP) <[BurgerP@michigan.gov](mailto:BurgerP@michigan.gov)>  
**Subject:** RE: Flint Issue Questions from DTMB Procurement

I will do what I can to address some of these questions.

- 1) Since FEMA arrived on-site in the SEOC, they have been procuring the water resources made available through the federal emergency declaration; water, faucet filters, replacement cartridges, filtered pitchers and water testing kits. If going through an established state contract gets a better price, that is how they are ordering items. If they have a better deal or resource, that is what they do.
- 2) All resources are being delivered to the warehouse located at 4315 N. Clio Road in Flint. Michigan Department of Corrections has warehouse management staff in place to manage the warehouse operations. Receipt of all

resources, regardless of who ordered them, is being checked in to the warehouse with packaging slips and I have copies of the FEMA order form as well. We don't do anything special with FEMA purchased resources.

- 3) The State of Michigan has a 25% match requirement for the FEMA dollars spent. DHHS will not get a bill for 25% of anything from FEMA. I work directly with FEMA on the finances through EMHSD as the State Financial Officer, and at this point we have FEMA assistance for 90 days. We are nowhere close to getting a bill from FEMA yet and that is something that I will take care of working with the State Budget Office as needed. I have never sent a bill for match to another state agency.
- 4) At this point in time, we only have a federal declaration of emergency that brings FEMA procured resources for 90 days beginning on the date of declaration, which was January 16, 2016. We don't have any other federal awards that would allow for reimbursement of items purchased before the federal declaration. We have a few requests out at the federal level, but it is a long process and there are no guarantees. Our guarantee is that FEMA will buy water and filters for 90 days.

What I need from state agency financial staff are current expenditures for costs for their own agency on a weekly basis so I can update the State Director here in the SEOC. Costs need to be directly related to the emergency, such as staff overtime in the SEOC or in the field responding to the event, contracts required for response, purchases for items necessary for use in the emergency response – water, filters, computers for field teams, etc, and fuel for vehicles. This is not an exhaustive list, but gives you the main items. And we have processes in place here in the SEOC for requesting resources to ensure that all items purchased are approved by SEOC command.

I hope this has answered some questions. The biggest assistance a state agency can provide from a financial aspect is weekly updated reports. If you still have questions, please let me know.

Penny Burger  
State Financial Officer  
State Emergency Operations Center  
MSP/EMHSD  
517-336-2688

---

**From:** Doll, Jeanette (DTMB)  
**Sent:** Monday, January 25, 2016 11:41 AM  
**To:** Burger, Penelope (MSP); MSP-seocfgc  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Penny –

Could someone in your shop assist DHHS with their questions below?

Jeanette

---

**From:** Stephen, Kimberly (DHHS)  
**Sent:** Monday, January 25, 2016 10:12 AM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Thompson, Sheryl D. (DHHS) <[ThompsonS2@michigan.gov](mailto:ThompsonS2@michigan.gov)>; Sanford, Jeffery (DHHS) <[SanfordJ3@michigan.gov](mailto:SanfordJ3@michigan.gov)>  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Awesome! Jeff Sanford is the right person to be working on the invoices. He and I had several conversations on Friday and will continue to work together on the reconciliation.



Appreciate the FEMA the update. It is so very helpful. Do we know where the FEMA filters are being delivered and if/how the receipt of the filters is being tracked? I assume that DHHS will at some point will receive a billing for 25% of the FEMA filter bill so I want to ensure we are tracking receipt of the product. Do we have any confirmation on how the financial reimbursement to FEMA will work? If you are not the correct person to answer these questions, please point me in the right direction.

Sent from my iPad

On Jan 25, 2016, at 8:55 AM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

Kim,

There wasn't an actual meeting with Home Depot and DHHS. Last week on Thursday I sent all the receipts and invoices from Home Depot to Jeff Sanford at DHHS. I got Jeff connected with David Khanuja from Home Depot and they have been working through those invoices and Jeff is consolidating that information.

**FEMA** – FYI. I have been informed from Home Depot that someone from FEMA ordered approximately \$330,000 worth of filters last week and approximately another \$1,000,000 worth of filters on Saturday night.

*Steve Rigg*

Buyer, Commodities Division

DTMB-Procurement

(517)284-7043

[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

<image002.png>

---

**From:** Cook, Rebecca (DTMB)

**Sent:** Monday, January 25, 2016 6:22 AM

**To:** Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>

**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Sanches, Christine (DHHS)

<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Rigg, Steve (DTMB)

<[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Subject:** Re: Flint Issue Questions from DTMB Procurement

Kim - Will do.

Steve - can you please let Kim know which DHHS employees were present at the last Home Depot meeting, and copy her on emails relative to invoices in the future? Thank you for this and all of your hard work.

On Jan 24, 2016, at 9:08 PM, Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)> wrote:

Thank you for the reply tonight. I am not expecting assistance in formulating a response to MSP but rather wanted to make you aware of the request to avoid duplicate reporting. There are many people involved and it is very confusing as to who is responsible for what. The more we can keep the lines of communications

open the better. Please include DHHS in any meeting on Home Depot invoice payments since we will be ultimately responsible. We can talk in more detail on Monday.

Sent from my iPhone

On Jan 24, 2016, at 8:24 PM, Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)> wrote:

Kim

To clarify, DTMB Procurement is not in a position to track usage and spend, so we are unable to assist in your response to MSP. Please work with Jeanette and Chris. The SEOC has asked everyone to track receipts and enter them into MySims software.

Buyer Steve Rigg is involved to the extent that Home Depot is asking questions about unpaid invoices, and Steve facilitated getting invoice copies and a meeting set up. The State is running close to its account credit limit with Home Depot and needs invoices cleared for payment.

We are still seeking clarification on the new FEMA process, and anticipate more information next week.

I'm happy to talk more on Monday, but thought you may also need an immediate response.

Please call my cell for any emergency requests, instead of or in addition to email.

Rebecca  
517-930-4015

On Jan 24, 2016, at 4:34 PM, Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)> wrote:

Kim Sorry just getting to Friday's emails!

I am copying Rebecca and she can comment but also be aware that we are looking to have staff coordinate with the SEOC and communication will be addressed as it is confusing. Please feel free to reach out to Chris and Jeanette at anytime tho.

**From:** Stephen, Kimberly (DHHS)  
**Sent:** Friday, January 22, 2016 11:09 AM  
**To:** Maynard, Sharon (DTMB)  
**Subject:** FW: Flint Issue Questions from DTMB  
Procurement

Hi Sharon,

Would it be possible for Rebecca to include me in her communication on this important matter? It is not clear to me from the e-mail below if she is still seeking clarification on this issue or if I should contact to Jeanette Doll and Chris Christensen myself to obtain answers.

We have received the following request from State Police for information:

**From:** MSP-seocfgc  
**Sent:** Wednesday, January 20, 2016 4:23 PM  
**To:** Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>  
**Subject:** Costs for City of Flint

Hi Susan:

Richard Thelen gave me your name as his financial point of contact at DHHS. The immediate need is information on the costs incurred by DHHS for water, water filters, and replacement cartridges. FEMA has asked for this information – even if some of the figures are an estimate – so they have a ballpark idea.

If you could get some numbers to me tomorrow, I'd appreciate it. Please include all of your costs related to Flint, including those that were paid for with the special appropriation that you received in October. I will be providing some guidance on how costs should be tracked for state disaster assistance and possible federal assistance.

If you have any questions, please let me know.

Thanks,  
Penny Burger

Michigan State Police  
Emergency Operations Center  
Financial Section Chief  
(517)336-2688

Kim

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Thursday, January 21, 2016 1:39 PM  
**To:** Stephen, Kimberly (DHHS)

<STEPHENK@michigan.gov>

**Subject:** FW: Flint Issue Questions from DTMB  
Procurement

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:54 PM  
**To:** Sanches, Christine (DHHS)  
<SanchesC@michigan.gov>  
**Subject:** FW: Flint Issue Questions from DTMB  
Procurement

Sheryl likely already provided you an update, but just in case she did not...

---

**From:** Thompson, Sheryl D. (DHHS)  
**Sent:** Thursday, January 21, 2016 12:36 PM  
**To:** Rigg, Steve (DTMB) <RiggS@michigan.gov>  
**Cc:** Doll, Jeanette (DTMB) <dollj@michigan.gov>; Christensen, Chris (DTMB) <christensenc4@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Thelen, Richard (DHHS) <ThelenR4@michigan.gov>  
**Subject:** Re: Flint Issue Questions from DTMB  
Procurement

Hi Steve, in the very beginning October I would send 319 to budget to process and order products from Home Depot.

As product begin getting scarce I began working directly with David as to what we needed vs what was available etc. then I would complete the PO but budget always knew what was coming.

When SEOC and got involved Richard or Brian would ask me to order products to maintain consistency and to continue working with David.

I also have a financial specialist Jeff Sanford who works with me and prepares the 319 for processing for all the filter orders.

He received all of the invoices from Home Depot for the product that we received under our existing POs. He will go through and consolidate the product received with our tracking spreadsheet and signed 319s. Once That is completed he can create a payment voucher for Home Depot to get paid.

I also just got a message from David that he has 12,000 Brita filters available. He needs direction as to what we want.

I am not approving any orders at this time per directions that FEMA is now ordering.

I'm am available to do whatever is needed.

Sheryl Thompson  
Deputy Director of Field Operations  
Dept of Health & Human Services  
235 S. Grand Ave, Ste 1413  
Lansing, MI 48909  
517-241-5954

On Jan 21, 2016, at 11:36 AM, Rigg, Steve (DTMB)  
<[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

Chris/Jeanette,

My questions only pertain to Home Depot and the procurement of water filters, bottled water, and supplies needed for repairs. I'm trying to sort out the confusion that David from Home Depot and I have regarding the procurement of these items and the processing of payments. We need to finalize a fluid process for this so that we can avoid further confusion. I want to do everything I can to help, but I first need to understand the current process so I can direct what I have control over to the right people. I don't want there to be a disruption in the incoming flow of these items.

1. What is the current process for ordering these items? David from Home Depot is currently getting calls from a minimum of 4 different people.

2. Response: Sheryl had been the lead until EOC came on board.
3. What is FEMA's role in procuring these items? Apparently a FEMA rep called Brita directly to order filters. Home Depot has cornered the market on all filters from Brita and PUR, so it is suggested that we continue to work directly with David from Home Depot.
4. Response: I agree
5. If FEMA does take over the ordering of filters, water, and supplies, will they agree to work with Home Depot and who is the contact person that could work directly with David from Home Depot?
6. Will FEMA be creating contracts directly with manufacturers or will they utilize current contracted vendors?
7. If FEMA takes over, will they be paying invoices directly or will that continue to be done by the State?
8. What happens when FEMA leaves in 3 months? Good question
9. Who is responsible for entering Home Depot

receipts into the MySimms tracking system so that David from Home Depot can send these receipts to that person directly? I have attached the receipts that I have received from Home Depot.

10. Right now Home Depot invoices are sent out monthly because of the 60 day terms in the contract. However, we currently have over \$10,000,000 in outstanding invoices. We had gotten CitiBank to increase our credit limit to \$10,000,000 last week. We requested CitiBank to increase the credit line to \$20,000,000, but that has not yet been approved by CitiBank. To keep the credit line open we need to turn around these invoices much quicker. Citi has an EFT program that a State designee could log into and pull invoices from immediately to get them paid. Who would be the person that Citi could set up an account with so that they could log in and download invoices for quicker processing?
11. LARA recently purchased items from Home Depot for plumbing supplies. Moving forward, if LARA is to procure any more items through Home Depot can they work directly with David from Home Depot so as to not cause any more delays?

That is all I have at this point. Thanks for any feedback.

***Steve Rigg***

Buyer, Commodities Division

DTMB-Procurement

(517)284-7043

[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

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<8970194.pdf>

<8970195.pdf>



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**From:** Clement, Elizabeth (GOV)  
**Sent:** Tuesday, January 26, 2016 5:22 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Contact  
**Attachments:** MSP\_Overview\_doc (1) (1).pdf; ATT00001.htm

Jeff,

I spoke with the gentleman below and think it may be worthwhile for you to follow up with him and see if he offers any products/services that could be beneficial to the state. Let me know how the conversation goes and if there is anything here.

Thanks!

Beth

Beth,

It's so nice to meet you. Confirming Terri's email, engaged with 8 states and many dozen cities and municipalities, Knowledge Services specialize in cost savings and governance solutions for State and local governments.

Our technologies and services provide governments with project tracking, scheduling, service validation, governance, reporting and predictive analytics. Simply said, we bring process efficiencies and controls to large, complex and highly regulated environments. We also took note of the Flint Water circumstance and, based on the proposed solutions, believe our services may provide meaningful value. From filters to health services for citizens, significant tracking and service validation, relating to a multitude of projects and expenditures, are likely required. We would welcome the opportunity to explore the degree to which our services might provide value.

Not directly associated with the Flint needs but along the same lines, our mobile application provides service validation for in-home health services (for both Service Providers and State FTEs). With 100% validation of services, primary motivations are typically the elimination of fraudulent billings associated with field based services.

I look forward to hearing back from you or whomever you may feel might be most appropriate. I suspect there is a strong sense of urgency but will also be in DC for the RGA conference February 18<sup>th</sup> – 21<sup>st</sup>.

Thanks in advance for your consideration. Wishing you warm wishes on this cold January day!

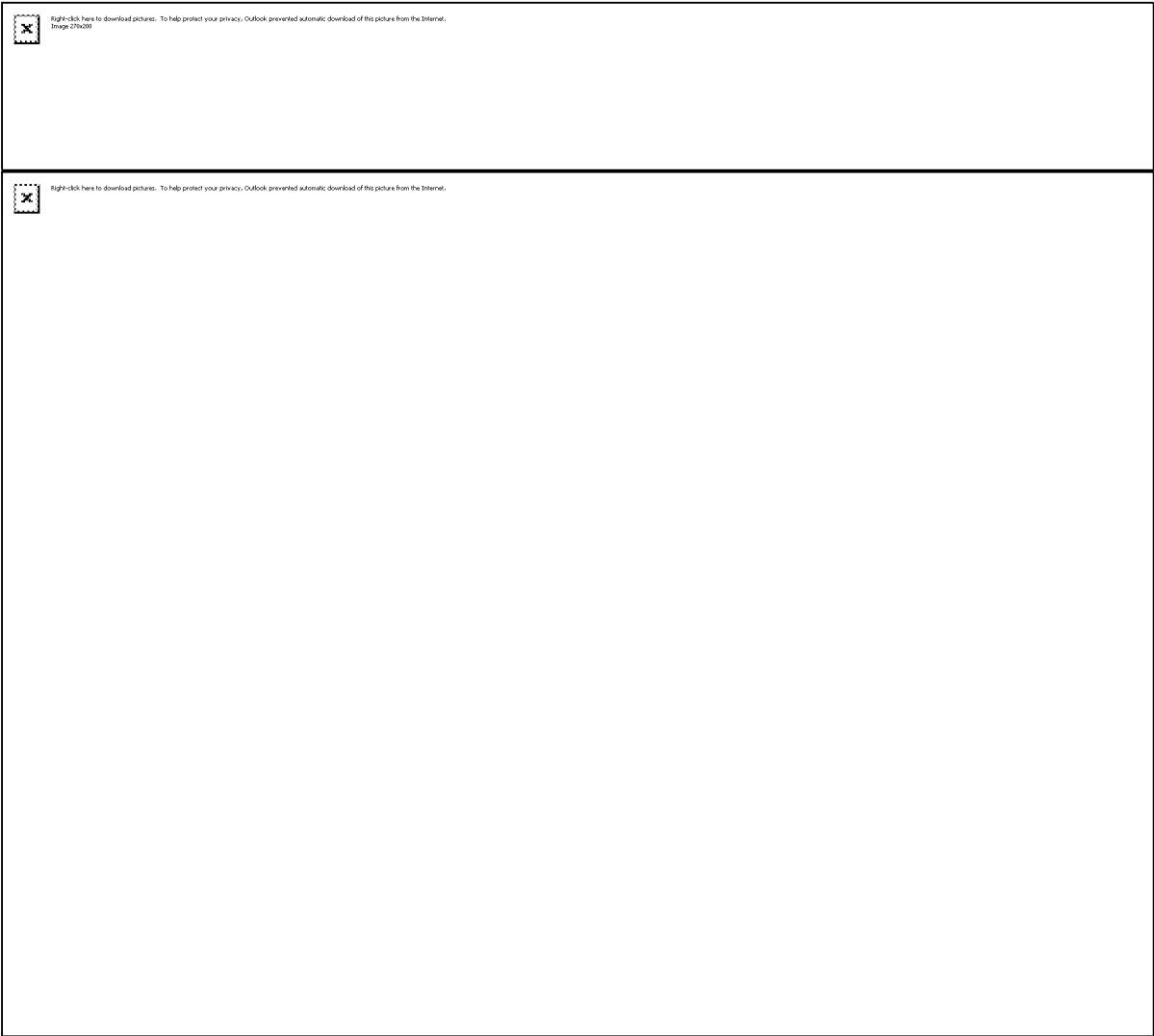
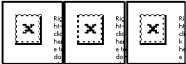
Sincerely,

Joe Bielawski  
President  
Knowledge Services / dotStaff  
317.806.6199 (office)

317.490.9071 (cell)

**From:** Smart & Resilient Cities <mail@sgc-ecms.com>  
**Sent:** Tuesday, January 26, 2016 8:14 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Shedding more than just light

Problem viewing this email? [View it in your browser.](#)



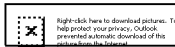
## Shedding more than just light !

Arguably no other area of the smart and resilient city evolution has integrated more Internet of Things data elements than urban lighting. These new "smart polls" combine technologies that range from shot gun detection sensors and charging stations, to wifi nodes and cell phone antennae....



## The 4 Types of Cities and How to Prepare Them for the Future

The prospect of urban innovation excites the imagination. But dreaming up what a "smart city" will look like in some gleaming future is, by its nature, a utopian exercise. The messy truth is that cities are not the same, and even the most innovative approach can never achieve...



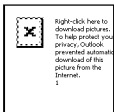
## What is Urbanophobia?

Agenda 21 isn't getting the attention it once did. Five years ago, the much-criticized United Nations environmental manifesto was all over TV news and conservative talk shows, denounced by Glenn Beck and others as a sinister globalist threat to American sovereignty and liberty. That debate...



## Are cities the new countries?

Do big cities have more in common with each other than with the rest of their own countries? Are there meaningful comparisons between cities such as New York, London and Shanghai, rather than between nation states? That is the suggestion of the Organisation for Economic Co-operation and...



## What the world's best cities will look like in 2030

Two mega-trends - the rapid urbanization of the world's population and the aging of that same population - will soon collide. By 2030, more than 1 billion people (one in eight) will be aged 65 or older, and by 2050, nearly two-thirds of the world's population will live in urban areas....



## 5 things to know about Flint's water crisis

It's hard to put anything about the issue in a nutshell, but a solid summary is as follows: In charge of the city's budget amid a financial emergency, the state decided to temporarily switch Flint's water source from Lake Huron to the Flint River as a cost-saving measure until a new supply...

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## Mayors are key to data analytics drive, says think-tank

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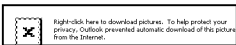
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3030 Salt Creek Lane Arlington Heights, IL 60005

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**From:** Buhs, Caleb (DTMB)  
**Sent:** Wednesday, January 27, 2016 2:27 PM  
**To:** Cook, Rebecca (DTMB);MSP-EOC-MDCH  
**Cc:** Weiss, Kurt (DTMB);Brownlee, Jeff (DTMB)  
**Subject:** RE: Next Step

Jeanette,

After talking this over with Jeff Brownlee, there does not seem to be any legal reason why they couldn't add a button, as was requested below. There are a few things that need to be considered though.

- Expectations need to be set for the response to these inquiries. It would be best if the receiver of these submissions was located at the SEOC, so they could review with the appropriate agency leads and determine an appropriate response. If it is expected that DTMB Procurement serve as the contact, the response to vendors will be severely delayed and in some cases they may not be able to get a response back at all.
- If it is determined that a submission is feasible, the SEOC should work with Procurement to make sure all proper procedures are followed.
- Shannon Banner has provided some language to the SEOC for the button that should be utilized.

Feel free to contact me if you need any further help. I've been working at the JIC in Flint today and am available by cell at 517-303-4038.

Thanks,

**Caleb Buhs**

Public Information Officer

Dept. of Technology, Management and Budget

O: 517-241-7422

C: 517-303-4038

[buhsc@michigan.gov](mailto:buhsc@michigan.gov)



**HELP. CONNECT. SOLVE.**

---

**From:** MSP-EOC-MDTMB  
**Sent:** Wednesday, January 27, 2016 11:01 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** MSP-EOC-MDTMB <[MSP-EOC-MDTMB@michigan.gov](mailto:MSP-EOC-MDTMB@michigan.gov)>  
**Subject:** FW: Next Step  
**Importance:** High

Rebecca --

We received the following email and would like to make sure we are providing accurate information. Please review and we can talk.

Jeanette

---

**From:** MSP-SEOCPIO

**Importance:** High

Can you check with DTMB on this. Tori Sachs with the Gov's Office was considering adding a button on [www.helpforflint.com](http://www.helpforflint.com) to capture vendors who want to pitch their product/idea; however, last I talked with her, there were concerns about violating state procurement processes.

Maybe DTMB has an email account already established for people who want to do business with the state? This is what FEMA has on their website for disasters.

Seems to me this should be handed off to DTMB procurement for a solution.

---

**From:** DeVriendt, Chris [CDeVriendt@co.genesee.mi.us]

**Sent:** Wednesday, January 27, 2016 7:33 AM

**To:** JICManager; MSP-seoclgc; Adelman, Mitch (DEQ)

**Cc:** Kuzera, Michelle (MSP); Ducharme, Mark (DEQ)

**Subject:** FW: Next Step

Can someone please address this. If there is going to be zero communication with 'vendors', then there needs to be a canned response indicating such. I spend an inordinate amount of time with these missives as they are coming into my work e-mail, calling the LEOC phones, and showing up at the LEOC doorstep pitching their solutions because nobody is communicating with them.

Chris DeVriendt, LVT, MPH  
Emergency Management Manager  
Office of Genesee County Sheriff  
Emergency Management Homeland Security Division  
1002 South Saginaw Street  
Flint, MI 48502  
(810) 257-3064(direct)  
(810) 237-6169 (fax)  
[cdevriendt@co.genesee.mi.us](mailto:cdevriendt@co.genesee.mi.us)

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Message

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**From:** Doll, Jeanette (DTMB) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B93FFC078BE649D0A8AA0C386D7B73F1-DOLL JEANETTE]  
**Sent:** 1/27/2016 3:09:12 PM  
**To:** Cook, Rebecca (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2c072214bc9f472783db4bb8c06df01c-Cook Rebecca]  
**CC:** Rigg, Steve (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=18d130274b1949c7a252fe3694a37fcb-Rigg Stephen]; Riehle, Jenni (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fb490962d5e040fb91918cc232ac8138-Riehle Jennifer]; Brownlee, Jeff (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bae5bd3c6f244006a9a672e3df1f299c-Brownlee Jeff]  
**Subject:** RE: Nephros Cartridge Filter - Flint

Rebecca –

I have asked DEQ to provide who within their department could assist with the inquiries. I will share with your group once we receive it.

Jeanette

**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, January 27, 2016 2:15 PM  
**To:** Doll, Jeanette (DTMB) <dollj@michigan.gov>  
**Cc:** Rigg, Steve (DTMB) <RiggS@michigan.gov>; Riehle, Jenni (DTMB) <RiehleJ2@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Subject:** FW: Nephros Cartridge Filter - Flint

Jeanette

Per our previous conversations, thank you for being the SEOC liaison to receive external inquiries and properly route them for evaluation.

DEQ tech staff would need to evaluate whether this filter would meet established standards prior to considering it for use.



Please let me know if SEOC has feedback as to how to handle these as more seem to be coming in.

Thanks!

Rebecca

**From:** Rigg, Steve (DTMB)  
**Sent:** Wednesday, January 27, 2016 1:35 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** FW: Nephros Cartridge Filter

Just an FYI. Here is another inquiry of a sales person having filters to sell.

*Steve Rigg*

Buyer, Commodities Division

DTMB-Procurement

(517)284-7043

[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

**DTMB**  
HELP. CONNECT. SOLVE.

**From:** Rodney Marshall [<mailto:rodney@aldevra.com>]  
**Sent:** Wednesday, January 27, 2016 12:51 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** FW: Nephros Cartridge Filter

Mr. Rigg,

I'm glad Ms. Premoe connected us! We sell Nephros filters, which are FDA approved to retain bacteria, viruses and biological toxins. Attached is more information. These filters have been installed on faucets, showerheads and ice machines in hospitals where Legionella outbreaks have occurred, and we'd like to talk with someone to see if these might be a good option for the Flint area.

Are you the right person? If so, can we take 5 minutes of your time to discuss? Also, since you're in purchasing, my company can you help attain the 5% disabled veteran business goal since I qualify.

Look forward to hearing from you!

Rodney Marshall, President & CEO

Aldevra

251 N. Rose St., Suite 200

Kalamazoo, MI 49007

wk 269-350-1337

cell 269-720-0515

fax 269-327-7392

email [rodney@aldevra.com](mailto:rodney@aldevra.com)

[www.aldevra.com](http://www.aldevra.com)

CAGE Code: 5EEK3

CVE Verified Service Disabled Veteran Owned Small Business Certified Minority Owned Enterprise Small Disadvantaged Business Visit our GSA Advantage online catalog

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**From:** Premoe, Tara (DEQ) [<mailto:PremoeT@michigan.gov>]  
**Sent:** Wednesday, January 27, 2016 10:58 AM  
**To:** Rodney Marshall <[rodney@aldevra.com](mailto:rodney@aldevra.com)>  
**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** RE: Nephros Cartridge Filter

Mr. Marshall,

The DEQ is not involved in the purchase of filters. I am copying the DTMB buyer on this message responsible for that area. Thank you.

**Tara Premoe**

Administration

Department of Environmental Quality

PH: (517) 284-5012

[premoet@michigan.gov](mailto:premoet@michigan.gov)

**From:** Rodney Marshall [<mailto:rodney@aldevra.com>]  
**Sent:** Wednesday, January 27, 2016 10:50 AM  
**To:** Premoe, Tara (DEQ)  
**Subject:** Nephros Cartridge Filter

Ms. Premoe,

I see you're buying lab sample containers and media for bacteriological analysis of drinking water for the Department of Environmental Quality, and I wondered whether or not you were involved in procurement to help with the Flint water situation. We want to make sure DEQ and others are aware of the Nephros filter, which is FDA approved to retain

bacteria, viruses and biological toxins. Attached is more information. These filters have been installed on faucets, showerheads and ice machines in hospitals where Legionella outbreaks have occurred.

Can you please let me know who I might talk with about these filters?

Thank you,

Rodney Marshall, President & CEO

Aldevra

251 N. Rose St., Suite 200

Kalamazoo, MI 49007

wk 269-350-1337

cell 269-720-0515

fax 269-327-7392

email [rodney@aldevra.com](mailto:rodney@aldevra.com)

[www.aldevra.com](http://www.aldevra.com)

CAGE Code: 5EEK3

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**From:** Hatch, David (DTMB)  
**Sent:** Thursday, January 28, 2016 3:23 PM  
**To:** Buhs, Caleb (DTMB)  
**Cc:** Brownlee, Jeff (DTMB)  
**Subject:** Flint water purchasing organization communications

**Importance:** High

Hi Caleb,

On assignment from Jeff Brownlee, per his commitment on a call last Friday with Brom, Col. Etue, and Capt Keleske (in charge of the SEOC), I have been asked to help facilitate a communication within the agencies to ensure appropriate procedures are used in purchasing activities related to emergency purchases for the SEOC or as part of the State's emergency response. Especially given the approval of the supplemental funding bill. I have done some research this week to confirm ongoing activities inside of DHHS, DEQ, DTMB, and MSP. I have also had a discussion about LARA's activities with Rebecca Cook.

He would like the following communicated:

1. Reporting to the SEOC; and the need to do so for reimbursement.
2. Ensure that each agency communicate the purchasing process (i.e. how they work with MSP, internal tracking procedures for emergencies, etc.).
3. Ensuring that agency SEOC reps, purchasing, and other in the process understand that SEOC purchasing flows through the appropriate purchasing channel for each agency.

I can create a rough draft to get to you as well.

Do you have time for a call today? He would like me to discuss with you the best way to communicate this (you, DTMB Procurement) and to craft the message. I have a meeting at 3:30 for about 15 minutes with Jeff Wellman, but will have my cell phone with me.

My cell phone number is 517-899-2839. I have time tomorrow morning to meet or can make time this evening.

Dave

David Hatch  
DTMB – Procurement  
Buyer, IT Division  
Constitution Hall – 1<sup>st</sup> Floor  
525 West Allegan  
Lansing, MI 48913  
Phone (517) 284-7044  
Fax (517) 335-0046  
[hatchd@michigan.gov](mailto:hatchd@michigan.gov)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)



HELP. CONNECT. SOLVE.

---

**From:** Maynard, Sharon (DTMB)  
**Sent:** Thursday, January 28, 2016 7:55 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Fwd: Time for Flint Water Assignment...

Can we consider compensating him for the extra hours needed for flint? This should pass pretty much after this week right?

Sent from my iPad

Begin forwarded message:

**From:** "Hatch, David (DTMB)" <[HatchD@michigan.gov](mailto:HatchD@michigan.gov)>  
**Date:** January 28, 2016 at 4:08:25 PM EST  
**To:** "Pemble, William (DTMB)" <[PembleW@michigan.gov](mailto:PembleW@michigan.gov)>, "Maynard, Sharon (DTMB)" <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** Time for Flint Water Assignment...

Hi Bill and Sharon,

Bill – just was in a meeting with Jeff, Sharon, and Rebecca where Jeff assigned me additional work that needs to get done today and tomorrow.

Bill and Sharon – I am already beyond my approved overtime by 2 hours for this pay period. I have spent 15+ hours this week on the Flint assignment. I have regular work that is quickly falling behind (I am behind on Digital Signatures, MMCC Q&A which was due to vendors Monday, and need to read my Co-Location RFP's for next week); and get my Flint related assignment(s) done.

I am planning to work the hours to needed to get the work done, so none of these falls through the cracks.

Please let me know how my pay for this should be handled.

For now I will keep reporting and tracking my hours with Bill so he has a record of my work hours.

Dave

David Hatch  
DTMB – Procurement  
Buyer, IT Division  
Constitution Hall – 1<sup>st</sup> Floor  
525 West Allegan  
Lansing, MI 48913  
Phone (517) 284-7044  
Fax (517) 335-0046  
[hatchd@michigan.gov](mailto:hatchd@michigan.gov)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)





---

**From:** Hamilton, Kelly (DTMB)  
**Sent:** Friday, January 29, 2016 12:27 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

**Importance:** High

Jeff -- Melissa did some leg work on this with Mindy Hummel and David has an android and wishes to have that for type of model for his state phone since he isn't familiar with iphones but apparently the cheapest android is Galaxy at \$99.99 vs. the iphone for 99 cents we ordered for Rigg and Melissa.

Which way would you like me to proceed? If we get it to Mindy today she can order over the weekend and hopefully have either option here for him on Monday.

---

**From:** Hatch, David (DTMB)  
**Sent:** Friday, January 29, 2016 9:22 AM  
**To:** Hamilton, Kelly (DTMB) <HamiltonK9@michigan.gov>  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Kelly,

How do I request VPN access? I have a need to have it during my assignment supporting the Flint Water Emergency Response.

Thanks,  
Dave

---

**From:** Hatch, David (DTMB)  
**Sent:** Friday, January 29, 2016 9:20 AM  
**To:** Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Cc:** Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>  
**Subject:** RE: Flint Issue Questions from DTMB Procurement

Jeff,

I think there is value for me having a State phone during this.

Melissa, please request a phone for me. Thanks!

Thanks,  
Dave

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, January 26, 2016 7:58 PM  
**To:** Hatch, David (DTMB) <HatchD@michigan.gov>

**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>

**Subject:** RE: Flint Issue Questions from DTMB Procurement

Just seeing this, David. I'm sorry. Feel free to txt me anytime. It's the best way to get me. Do you still need help?

Is there value in getting you a state iphone during this? If yes, please let Melissa know (cc'd).

---

**From:** Hatch, David (DTMB)

**Sent:** Monday, January 25, 2016 1:56 PM

**To:** Sharon Maynard <[ssmaynard@hotmail.com](mailto:ssmaynard@hotmail.com)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>

**Subject:** FW: Flint Issue Questions from DTMB Procurement

Can you get me on this email chain, or at least get me introduced to Penny? After talking to Chris Christensen and his guy Ryan, they told me Penny is the person I should start with.

I feel urgency about my request to her, but I don't know if she does. Your help would be appreciated.

Thanks,

Dave

---

**From:** Rigg, Steve (DTMB)

**Sent:** Monday, January 25, 2016 1:51 PM

**To:** Hatch, David (DTMB) <[HatchD@michigan.gov](mailto:HatchD@michigan.gov)>

**Subject:** FW: Flint Issue Questions from DTMB Procurement

I'm sure you'll get this sent to you a few times, but a lot of our questions are answered in this email.

***Steve Rigg***

Buyer, Commodities Division

DTMB-Procurement

(517)284-7043

[RiggS@michigan.gov](mailto:RiggS@michigan.gov)



**HELP. CONNECT. SOLVE.**

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**From:** MSP-seocfgc

**Sent:** Monday, January 25, 2016 1:31 PM

**To:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Thompson, Sheryl D. (DHHS) <[ThompsonS2@michigan.gov](mailto:ThompsonS2@michigan.gov)>; Sanford, Jeffery (DHHS) <[SanfordJ3@michigan.gov](mailto:SanfordJ3@michigan.gov)>; Thelen, Richard (DHHS) <[ThelenR4@michigan.gov](mailto:ThelenR4@michigan.gov)>

**Cc:** Burger, Penelope (MSP) <[BurgerP@michigan.gov](mailto:BurgerP@michigan.gov)>

**Subject:** RE: Flint Issue Questions from DTMB Procurement

I will do what I can to address some of these questions.

- 1) Since FEMA arrived on-site in the SEOC, they have been procuring the water resources made available through the federal emergency declaration; water, faucet filters, replacement cartridges, filtered pitchers and water testing kits. If going through an established state contract gets a better price, that is how they are ordering items. If they have a better deal or resource, that is what they do.
- 2) All resources are being delivered to the warehouse located at 4315 N. Clio Road in Flint. Michigan Department of Corrections has warehouse management staff in place to manage the warehouse operations. Receipt of all resources, regardless of who ordered them, is being checked in to the warehouse with packaging slips and I have copies of the FEMA order form as well. We don't do anything special with FEMA purchased resources.
- 3) The State of Michigan has a 25% match requirement for the FEMA dollars spent. DHHS will not get a bill for 25% of anything from FEMA. I work directly with FEMA on the finances through EMHSD as the State Financial Officer, and at this point we have FEMA assistance for 90 days. We are nowhere close to getting a bill from FEMA yet and that is something that I will take care of working with the State Budget Office as needed. I have never sent a bill for match to another state agency.
- 4) At this point in time, we only have a federal declaration of emergency that brings FEMA procured resources for 90 days beginning on the date of declaration, which was January 16, 2016. We don't have any other federal awards that would allow for reimbursement of items purchased before the federal declaration. We have a few requests out at the federal level, but it is a long process and there are no guarantees. Our guarantee is that FEMA will buy water and filters for 90 days.

What I need from state agency financial staff are current expenditures for costs for their own agency on a weekly basis so I can update the State Director here in the SEOC. Costs need to be directly related to the emergency, such as staff overtime in the SEOC or in the field responding to the event, contracts required for response, purchases for items necessary for use in the emergency response – water, filters, computers for field teams, etc, and fuel for vehicles. This is not an exhaustive list, but gives you the main items. And we have processes in place here in the SEOC for requesting resources to ensure that all items purchased are approved by SEOC command.

I hope this has answered some questions. The biggest assistance a state agency can provide from a financial aspect is weekly updated reports. If you still have questions, please let me know.

Penny Burger  
State Financial Officer  
State Emergency Operations Center  
MSP/EMHSD  
517-336-2688

---

**From:** Doll, Jeanette (DTMB)  
**Sent:** Monday, January 25, 2016 11:41 AM  
**To:** Burger, Penelope (MSP); MSP-seocfgc  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Penny –

Could someone in your shop assist DHHS with their questions below?

Jeanette

---

**From:** Stephen, Kimberly (DHHS)  
**Sent:** Monday, January 25, 2016 10:12 AM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Thompson, Sheryl D. (DHHS) <[ThompsonS2@michigan.gov](mailto:ThompsonS2@michigan.gov)>; Sanford, Jeffery (DHHS) <[SanfordJ3@michigan.gov](mailto:SanfordJ3@michigan.gov)>  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Awesome! Jeff Sanford is the right person to be working on the invoices. He and I had several conversations on Friday and will continue to work together on the reconciliation.

Appreciate the FEMA the update. It is so very helpful. Do we know where the FEMA filters are being delivered and if/how the receipt of the filters is being tracked? I assume that DHHS will at some point will receive a billing for 25% of the FEMA filter bill so I want to ensure we are tracking receipt of the product. Do we have any confirmation on how the financial reimbursement to FEMA will work? If you are not the correct person to answer these questions, please point me in the right direction.

Sent from my iPad

On Jan 25, 2016, at 8:55 AM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

Kim,

There wasn't an actual meeting with Home Depot and DHHS. Last week on Thursday I sent all the receipts and invoices from Home Depot to Jeff Sanford at DHHS. I got Jeff connected with David Khanuja from Home Depot and they have been working through those invoices and Jeff is consolidating that information.

**FEMA** – FYI. I have been informed from Home Depot that someone from FEMA ordered approximately \$330,000 worth of filters last week and approximately another \$1,000,000 worth of filters on Saturday night.

*Steve Rigg*

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

<image002.png>

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Monday, January 25, 2016 6:22 AM  
**To:** Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>  
**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Kim - Will do.

Steve - can you please let Kim know which DHHS employees were present at the last Home Depot meeting, and copy her on emails relative to invoices in the future? Thank you for this and all of your hard work.

On Jan 24, 2016, at 9:08 PM, Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)> wrote:

Thank you for the reply tonight. I am not expecting assistance in formulating a response to MSP but rather wanted to make you aware of the request to avoid duplicate reporting. There are many people involved and it is very confusing as to who is responsible for what. The more we can keep the lines of communications open the better. Please include DHHS in any meeting on Home Depot invoice payments since we will be ultimately responsible. We can talk in more detail on Monday.

Sent from my iPhone

On Jan 24, 2016, at 8:24 PM, Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)> wrote:

Kim

To clarify, DTMB Procurement is not in a position to track usage and spend, so we are unable to assist in your response to MSP. Please work with Jeanette and Chris. The SEOC has asked everyone to track receipts and enter them into MySims software.

Buyer Steve Rigg is involved to the extent that Home Depot is asking questions about unpaid invoices, and Steve facilitated getting invoice copies and a meeting set up. The State is running close to its account credit limit with Home Depot and needs invoices cleared for payment.

We are still seeking clarification on the new FEMA process, and anticipate more information next week.

I'm happy to talk more on Monday, but thought you may also need an immediate response.

Please call my cell for any emergency requests, instead of or in addition to email.

Rebecca  
517-930-4015

On Jan 24, 2016, at 4:34 PM, Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)> wrote:

Kim Sorry just getting to Friday's emails!

I am copying Rebecca and she can comment but also be aware that we are looking to have staff coordinate with the SEOC and communication will be addressed as it is confusing. Please feel free to reach out to Chris and Jeanette at anytime tho.

---

**From:** Stephen, Kimberly (DHHS)  
**Sent:** Friday, January 22, 2016 11:09 AM  
**To:** Maynard, Sharon (DTMB)  
**Subject:** FW: Flint Issue Questions from DTMB  
Procurement

Hi Sharon,

Would it be possible for Rebecca to include me in her communication on this important matter? It is not clear to me from the e-mail below if she is still seeking clarification on this issue or if I should contact to Jeanette Doll and Chris Christensen myself to obtain answers.

We have received the following request from State Police for information:

**From:** MSP-seocfgc  
**Sent:** Wednesday, January 20, 2016 4:23 PM  
**To:** Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>  
**Subject:** Costs for City of Flint

Hi Susan:

Richard Thelen gave me your name as his financial point of contact at DHHS. The immediate need is information on the costs incurred by DHHS for water, water filters, and replacement cartridges. FEMA has asked for this information – even if some of the figures are an estimate – so they have a ballpark idea.

If you could get some numbers to me tomorrow, I'd appreciate it. Please include all of your costs related to Flint, including those that were paid for with the special appropriation that you received in October. I will be providing some guidance on how costs should be tracked for state disaster assistance and possible federal assistance.

If you have any questions, please let me know.

Thanks,  
Penny Burger

Michigan State Police  
Emergency Operations Center  
Financial Section Chief  
(517)336-2688

Kim

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Thursday, January 21, 2016 1:39 PM  
**To:** Stephen, Kimberly (DHHS)  
<STEPHENK@michigan.gov>  
**Subject:** FW: Flint Issue Questions from DTMB  
Procurement

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:54 PM  
**To:** Sanches, Christine (DHHS)  
<SanchesC@michigan.gov>  
**Subject:** FW: Flint Issue Questions from DTMB  
Procurement

Sheryl likely already provided you an update, but just in case she did not...

---

**From:** Thompson, Sheryl D. (DHHS)  
**Sent:** Thursday, January 21, 2016 12:36 PM  
**To:** Rigg, Steve (DTMB) <RiggS@michigan.gov>  
**Cc:** Doll, Jeanette (DTMB) <dollj@michigan.gov>; Christensen, Chris (DTMB) <christensenc4@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Thelen, Richard (DHHS) <ThelenR4@michigan.gov>  
**Subject:** Re: Flint Issue Questions from DTMB  
Procurement

Hi Steve, in the very beginning October I would send 319 to budget to process and order products from Home Depot.

As product begin getting scarce I began working directly with David as to what we needed vs what was available etc. then I would complete the PO but budget always knew what was coming.

When SEOC and got involved Richard or Brian would ask me to order products to maintain consistency and to continue working with David.

I also have a financial specialist Jeff Sanford who works with me and prepares the 319 for processing for all the filter orders.

He received all of the invoices from Home Depot for the product that we received under our existing POs. He will go through and consolidate the product received with our tracking spreadsheet and signed 319s. Once That is

completed he can create a payment voucher for Home Depot to get paid.

I also just got a message from David that he has 12,000 Brita filters available. He needs direction as to what we want.

I am not approving any orders at this time per directions that FEMA is now ordering.

I'm am available to do whatever is needed.

Sheryl Thompson  
Deputy Director of Field Operations  
Dept of Health & Human Services  
235 S. Grand Ave, Ste 1413  
Lansing, MI 48909  
517-241-5954

On Jan 21, 2016, at 11:36 AM, Rigg, Steve (DTMB)  
<[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

Chris/Jeanette,

My questions only pertain to Home Depot and the procurement of water filters, bottled water, and supplies needed for repairs. I'm trying to sort out the confusion that David from Home Depot and I have regarding the procurement of these items and the processing of payments. We need to finalize a fluid process for this so that we can avoid further confusion. I want to do everything I can to help, but I first need to understand the current process so I can direct what I have control over to the right people. I don't want there to be a disruption in the incoming flow of these items.

1. What is the current process for ordering these items? David from Home Depot is currently getting



calls from a minimum of 4 different people.

2. Response: Sheryl had been the lead until EOC came on board.
3. What is FEMA's role in procuring these items? Apparently a FEMA rep called Brita directly to order filters. Home Depot has cornered the market on all filters from Brita and PUR, so it is suggested that we continue to work directly with David from Home Depot.
4. Response: I agree
5. If FEMA does take over the ordering of filters, water, and supplies, will they agree to work with Home Depot and who is the contact person that could work directly with David from Home Depot?
6. Will FEMA be creating contracts directly with manufacturers or will they utilize current contracted vendors?
7. If FEMA takes over, will they be paying invoices directly or will that continue to be done by the State?
8. What happens when FEMA leaves in 3 months? Good question

9. Who is responsible for entering Home Depot receipts into the MySimms tracking system so that David from Home Depot can send these receipts to that person directly? I have attached the receipts that I have received from Home Depot.
10. Right now Home Depot invoices are sent out monthly because of the 60 day terms in the contract. However, we currently have over \$10,000,000 in outstanding invoices. We had gotten CitiBank to increase our credit limit to \$10,000,000 last week. We requested CitiBank to increase the credit line to \$20,000,000, but that has not yet been approved by CitiBank. To keep the credit line open we need to turn around these invoices much quicker. Citi has an EFT program that a State designee could log into and pull invoices from immediately to get them paid. Who would be the person that Citi could set up an account with so that they could log in and download invoices for quicker processing?
11. LARA recently purchased items from Home Depot for plumbing supplies. Moving forward, if LARA is to procure any more items through Home Depot can they work directly with David from Home Depot so as to not cause any more delays?

That is all I have at this point. Thanks for any feedback.

***Steve Rigg***

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

<image002.png>

<7970216.pdf>

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<7971408.pdf>

<7971409.pdf>

<7971410.pdf>

<7971411.pdf>

<7973654.pdf>

<8970194.pdf>

<8970195.pdf>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, January 29, 2016 2:51 PM  
**To:** Brownlee, Jeff (DTMB)  
**Cc:** Maynard, Sharon (DTMB)  
**Subject:** Flint - draft memo  
**Attachments:** DTMB Procurement - Memo to Agency Purchasing Management - Key Emergency Response Considerations - Draft.docx

Jeff

It's a raw, rough draft – but here's a different approach, directed at PLT and all agency purchasing staff. Needs to be vetted through Chris C. and the Captain.

Rebecca Cook  
DTMB Procurement  
Commodities Division Director  
517-284-7008





STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

RICK SNYDER  
GOVERNOR

DAVID B. BEHEN  
DIRECTOR

January 29, 2016

**TO:** State of Michigan Procurement Management  
**FROM:** DTMB Procurement  
**SUBJECT:** Flint Water Emergency Response - Purchasing Guidance

Thank you to all who are working to support the State of Michigan's Flint Water Emergency Response.

Given the complexity and variety of the needs, the purchasing support required is complex as well. Purchasing protocols have some differences under this declared state of emergency, as well as funds tracking, or possible reimbursements.

In this emergency response the Michigan State Police (MSP) take the lead in managing the State of Michigan Emergency Operations Center (SEOC). Flint related purchases must first be routed through the appropriate State Emergency Operations Center (SEOC) contact (see attached for an agency roster). This is for all Flint related purchases, even if being made by agency procurement staff.

Agency purchasing managers are responsible to supply their agency's SEOC rep with a 24/7 phone number for agency purchasing staff support, and request that the SEOC rep involves them in every purchase. (Note: SEOC hours are 8 am to 8 pm, seven days a week.

Flint related purchases can be made by either their individual agency's SEOC contact or agency procurement staff. Agencies are responsible for their own sourcing of Flint related items, not DTMB.

Flint related purchases must follow State purchasing policy and procedure. No bid, sole source purchase may not qualify for reimbursement. Please escalate any questions before executing a buy.

- Each agency makes their own determination when an emergency purchase order is required, and is then responsible for the supporting documentation.
- Utilize existing State contracts where possible. Contact DTMB Procurement for help negotiating bulk rates or expedited shipments if needed.
- Obtain three quotes (CPO will provide a waiver from online bidding if needed)

Track all Flint related expenses for your agency in a spreadsheet. Establish internal protocols to support this. Report your agency's expenses to the SEOC Finance Coordinator Penny ? Expenses must be reported or they will not be reimbursed

Please track your "after action" improvement ideas from the purchasing perspective for future emergency response situations.

Questions, concerns, or comments should be emailed to.

Sincerely,

Jeff Brownlee  
Chief Procurement Officer  
State of Michigan

---

**From:** Roberts, John (DTMB)  
**Sent:** Saturday, January 30, 2016 3:40 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Flint/Emergency purchasing

Do you have everything you need now?

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 10:26 AM  
**To:** Roberts, John (DTMB); Stibitz, Brom (DTMB); Behen, David (DTMB); Duncan, Nancy (DTMB)  
**Cc:** Wellman, Jeff (DTMB); Minix, Connie (DTMB); Donnan, Chanda (DTMB)  
**Subject:** Flint/Emergency purchasing

Keeping this within DTMB for an initial discussion. I'd like to get 10 minutes with you all re: the emergency purchasing going on for Flint. The operating model currently in place is not working well according to my procurement leadership team (reps from all agencies) and my staff. I fear if we don't get ahead of this now, we may be causing ourselves some headaches down the road. More details when we talk.

If John and David agree to a call, Connie and Chanda, will you please coordinate? Thank you.

Jeff

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Monday, February 01, 2016 8:33 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Help for Flint

Jeff

Jeanette and I also discussed the memo on Saturday, and she requested info be added as well. (Perhaps an attachment – overview of purchasing processes, p-card limits, how do I see if there is a state contract, etc.)

I would recommend that the draft memo be shared with Jeanette and Chris if it hasn't been already. They can redline, add questions that need to be addressed so that it can be finalized.

I'm in the furniture JEC all day (Cudlip Conference Room), but you can pull me out if you need help editing. Just please send me the current document, I don't have it.

Rebecca

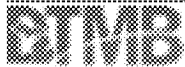
---

**From:** Christensen, Chris (DTMB)  
**Sent:** Monday, February 1, 2016 8:02 AM  
**To:** Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Subject:** FW: Help for Flint

I wanted to loop you in on one of the finance issues, below we have a director in DNR who wants to use services being offered by Accenture, (I am assuming the services will NOT be free). The problem is unless this goes through the right channels the SEOC will not be paying for them. I am working with Tom to make sure that doesn't happen.

One of the other things we may need to address in the letter is when vendors are offering "free" services. I think their definition of "free" and ours will be different.

Chris Christensen  
Director of Infrastructure Protection  
Office: (517) 241-2188  
Cell: (517) 243-1647  
[Christensenc4@michigan.gov](mailto:Christensenc4@michigan.gov)



**HELP. CONNECT. SOLVE.**

---

**From:** Christensen, Chris (DTMB)  
**Sent:** Monday, February 1, 2016 7:56 AM  
**To:** Weston, Tom (DNR) <[westont1@michigan.gov](mailto:westont1@michigan.gov)>; [james.h.rice@accenture.com](mailto:james.h.rice@accenture.com)  
**Cc:** Davenport, Rodney (DTMB) <[DavenportR1@michigan.gov](mailto:DavenportR1@michigan.gov)>; Kopacsi, Christian (DTMB) <[KopacsiC@michigan.gov](mailto:KopacsiC@michigan.gov)>  
**Subject:** RE: Help for Flint



Tom,

If any of the work is to be paid for from the emergency funds you HAVE to go through the SEOC. We are meeting today with the SEOC finance team, procurement team, and DTMB to ensure everyone is going through the correct channels in acquiring services for Flint. If Director Creagh is planning on paying for this out of his own budget then please let me know.

Thanks,

Chris Christensen

Director of Infrastructure Protection

Office: (517) 241-2188

Cell: (517) 243-1647

[Christensenc4@michigan.gov](mailto:Christensenc4@michigan.gov)



**HELP. CONNECT. SOLVE.**

---

**From:** Weston, Tom (DNR)

**Sent:** Sunday, January 31, 2016 2:23 PM

**To:** [james.h.rice@accenture.com](mailto:james.h.rice@accenture.com)

**Cc:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Davenport, Rodney (DTMB)

<[DavenportR1@michigan.gov](mailto:DavenportR1@michigan.gov)>; Kopacsi, Christian (DTMB) <[KopacsiC@michigan.gov](mailto:KopacsiC@michigan.gov)>

**Subject:** Re: Help for Flint

I am validating the offer with Director Creagh.

Sent from my iPhone

On Jan 31, 2016, at 12:36 PM, "[james.h.rice@accenture.com](mailto:james.h.rice@accenture.com)" <[james.h.rice@accenture.com](mailto:james.h.rice@accenture.com)> wrote:

I told Tom Weston this morning that we could possibly help in the following ways:

- Volunteer labor (distribute water/filters, cleanse and organize data, other)
- Lead pipe identification (maybe.....we might be building a system for this. I am getting more info.)
- Develop data collection systems (unstructured data, multiple sources, data quality/reliability, etc.)
  - Household data on pipes, filters, water tests
  - Public health data on lead poisoning case management
- Analyze data
- Program management
- Social Media sentiment analysis to supplement the JIC and Mercury LLC (not directly solving the problem, but could help in managing the situation, setting priorities, or developing communication plans)

We want to understand where the needs are, and then see how we can help. I'll work with Tom, and anyone who contacts me from the SEOC. Please guide me so we can be most helpful!

---

**From:** Christensen, Chris (DTMB) [<mailto:christensenc4@michigan.gov>]  
**Sent:** Sunday, January 31, 2016 11:40 AM  
**To:** Rice, James H. <[james.h.rice@accenture.com](mailto:james.h.rice@accenture.com)>  
**Cc:** Davenport, Rodney (DTMB) <[DavenportR1@michigan.gov](mailto:DavenportR1@michigan.gov)>; Kopacsi, Christian (DTMB) <[KopacsiC@michigan.gov](mailto:KopacsiC@michigan.gov)>  
**Subject:** RE: Help for Flint

Jay,

The SEOC is now actually out at the secondary complex, we moved in on Saturday, before it was just off of Collins road. They follow the ICS (Incident Command System) for coordination of any emergency. I am sure your information has been passed to the Logistics section and I will verify that today. Perhaps you could tell me about what type of help you would like to provide and I can make sure the right person is in the loop.

Thanks,

Chris Christensen  
Director of Infrastructure Protection  
Office: (517) 241-2188  
Cell: (517) 243-1647  
[Christensenc4@michigan.gov](mailto:Christensenc4@michigan.gov)  
<image001.png>

---

**From:** [james.h.rice@accenture.com](mailto:james.h.rice@accenture.com) [<mailto:james.h.rice@accenture.com>]  
**Sent:** Sunday, January 31, 2016 11:10 AM  
**To:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>  
**Subject:** RE: Help for Flint

OK, is the SEOC the State Emergency Operations Center in East Lansing run by MSP?  
Should I contact them?

---

**From:** Christensen, Chris (DTMB) [<mailto:christensenc4@michigan.gov>]  
**Sent:** Sunday, January 31, 2016 11:03 AM  
**To:** Rice, James H. <[james.h.rice@accenture.com](mailto:james.h.rice@accenture.com)>  
**Subject:** Re: Help for Flint

Thanks Jay!

I sent your information to the incident commander for review. I believe the logistical chief has your information. It's important that we work everything through the SEOC to ensure that everything is coordinated effectively.

Thanks Chris

On Jan 31, 2016, at 10:41 AM, "[james.h.rice@accenture.com](mailto:james.h.rice@accenture.com)" <[james.h.rice@accenture.com](mailto:james.h.rice@accenture.com)> wrote:

Chris,

Tom Weston from DNR called me this morning. I am organizing Accenture people to see how we might be able to help.

James H. (Jay) Rice

Michigan Client Account Lead | Accenture Public Sector  
c/o OTM8/MICSES  
111 S. Capitol Avenue, 12<sup>th</sup> Floor, Lansing, MI 48933  
Mobile: (517) 515-3028  
[james.h.rice@accenture.com](mailto:james.h.rice@accenture.com)

---

**From:** Rice, James H.

**Sent:** Friday, January 29, 2016 11:18 AM

**To:** Chris Christensen ([christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>

**Subject:** Help for Flint

Hi Chris,

I hear you are leading the charge for Flint. Accenture is interested in helping in a few ways, such as: money, volunteer labor, and technology solutions (underground pipe identification, mapping, tracking, etc.)

Could you give me a call when you have a minute to help me figure out how to get plugged in?

Jay

James H. (Jay) Rice

Michigan Client Account Lead | Accenture Public Sector  
c/o OTM8/MICSES  
111 S. Capitol Avenue, 12<sup>th</sup> Floor, Lansing, MI 48933  
Mobile: (517) 515-3028  
[james.h.rice@accenture.com](mailto:james.h.rice@accenture.com)

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---

[www.accenture.com](http://www.accenture.com)

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 01, 2016 10:54 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Vendor link

Hi Jeff,

I made a new tab specifically for this instead of redoing the vendor gateway. I am unable to send you a link because it is not a live page yet and you do not have access to the back end of the system. I have the below screen shot however. We can provide them this direct link or vendors can access this page by clicking on the left hand tab off of the Contract Connect website. These submissions will be sent to our general email box [dtmb-micontractconnect@michigan.gov](mailto:dtmb-micontractconnect@michigan.gov).

Please let me know of any changes you have. Thanks!

Jenni

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## Flint Emergency Purchasing

Vendors who are interested in selling goods or services to the state to aid in the Flint crises may use the following form to notify state representatives of their solutions. All submissions will be reviewed but not all vendors will be contacted.

Vendors should also register their business on the state's bid posting website [www.Buy4Michigan.com](http://www.Buy4Michigan.com) to find current contracting opportunities with the state. Additional information on the state's contracting process, including training material, policies, and more can be found on [www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect).

### Supplier's Submission Form

\* indicates a required field

Company \*

Location

Phone (main number)\*

Web site

Contact name \*

Title

Direct Phone \*

Contact email address \*

Re-entered email address \*

Name of commodities, services, or technology that you wish to supply to assist with the Flint water emergency\*

Description \*

URL for product/service info

Are you offering any free or in-kind products or services? (if applicable)

Comments/questions

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 01, 2016 10:25 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

Sure thing. Our network has been down all morning but I think they have it back up. I will work on it now.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 10:24 AM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** Re: Vendor link

When you have a mock up, please send a link to me and Brom. He needs this today, please. Thanks, Jenni!

Jeff

Sent from my iPhone

On Feb 1, 2016, at 7:59 AM, Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)> wrote:

Yeah, I can make one of the boxes ask if they are offering free or in-kind services. It would seem like they would go to the donation button on the Help for Flint site for that, but I'll put it in there.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Sunday, January 31, 2016 8:55 PM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** Fwd: Vendor link

FYI. Can we do this?

Sent from my iPhone

Begin forwarded message:

**From:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Date:** January 31, 2016 at 8:13:46 PM EST  
**To:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Fwd: Vendor link

See the one requested change from the Gov's office. Please let me see the thing before we share it. Thanks.

Thanks.

Brom Stibitz

Begin forwarded message:

**From:** "Sachs, Tori (GOV)" <[SachsT@michigan.gov](mailto:SachsT@michigan.gov)>  
**Date:** January 31, 2016 at 7:44:33 PM EST  
**To:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Subject:** RE: Vendor link

Looks good. I think we would like to link to it from the flint water site(s). The only addition I would like to see is somewhere that people could check a box offering "free" or "in kind" services.

---

**From:** Stibitz, Brom (DTMB)  
**Sent:** Friday, January 29, 2016 5:41 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Vendor link

Tori – our plan would be to modify this form for your needs. We could put this up on whichever site you prefer. Or we could give you a link for use on the Flint site.

Can you let me know if you have any specific changes you would like to see?

(PLEASE DO NOT SEND ANYONE TO THIS LINK NOW)

<http://michigan.gov/micontractconnect/0,4541,7-225-56585---,00.html>

Brom Stibitz  
Chief Deputy Director  
Michigan Department of Technology, Management and Budget  
[stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004  
<image001.gif>

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**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 01, 2016 11:02 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Vendor link

About 30 seconds.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 11:01 AM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** RE: Vendor link

Looks good to me! Checking with Brom in a few minutes. How long will it take to move it to production once I confirm with Brom?

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 1, 2016 10:54 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

Hi Jeff,

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\* indicates a required field

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URL for product/service info

Are you offering any free or in-kind products or services? (if applicable)

Comments/questions

---

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Jenni

---

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**Sent:** Sunday, January 31, 2016 8:55 PM  
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**Subject:** Fwd: Vendor link

See the one requested change from the Gov's office. Please let me see the thing before we share it. Thanks.

Thanks.

Brom Stibitz

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**From:** "Sachs, Tori (GOV)" <[SachsT@michigan.gov](mailto:SachsT@michigan.gov)>  
**Date:** January 31, 2016 at 7:44:33 PM EST  
**To:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Subject:** RE: Vendor link

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---

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**Sent:** Friday, January 29, 2016 5:41 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Vendor link

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<http://michigan.gov/micontractconnect/0,4541,7-225-56585---,00.html>

Brom Stibitz  
Chief Deputy Director  
Michigan Department of Technology, Management and Budget  
[stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004  
<image001.gif>

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 01, 2016 4:45 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Vendor link

Okay, I take back the 30 seconds. I just got an email from eMichigan saying that my admin cache button is going to be wonky while they try to improve the security on the website, so if we get an okay for the form it might take up to an hour to show to the public now. My apologies, I didn't see that one coming.

Thanks - Jenni

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 01, 2016 11:02 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

About 30 seconds.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 11:01 AM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** RE: Vendor link

Looks good to me! Checking with Brom in a few minutes. How long will it take to move it to production once I confirm with Brom?

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 1, 2016 10:54 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

Hi Jeff,

I made a new tab specifically for this instead of redoing the vendor gateway. I am unable to send you a link because it is not a live page yet and you do not have access to the back end of the system. I have the below screen shot however. We can provide them this direct link or vendors can access this page by clicking on the left hand tab off of the Contract Connect website. These submissions will be sent to our general email box [dltmb-micontractconnect@michigan.gov](mailto:dltmb-micontractconnect@michigan.gov).

Please let me know of any changes you have. Thanks!

Jenni

Training

State Administrative Board

Register as a Vendor

Programs and Policies

Local Government

Vendor Gateway

Contact Us

Flint Emergency Purchasing

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NEW

CONTRACT CONNECT / FLINT EMERGENCY PURCHASING /



## Flint Emergency Purchasing

Vendors who are interested in selling goods or services to the state to aid in the Flint crises may use the following form to notify state representatives of their solutions. All submissions will be reviewed but not all vendors will be contacted.

Vendors should also register their business on the state's bid posting website [www.Buy4Michigan.com](http://www.Buy4Michigan.com) to find current contracting opportunities with the state. Additional information on the state's contracting process, including training material, policies, and more can be found on [www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect).

### Supplier's Submission Form

\* indicates a required field

Company \*

Location

Phone (main number)\*

Web site

Contact name \*

Title

Direct Phone \*

Contact email address \*

Re-entered email address \*

Name of commodities, services, or technology that you wish to supply to assist with the Flint water emergency\*

Description \*

URL for product/service info

Are you offering any free or in-kind products or services? (if applicable)

Comments/questions

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 01, 2016 10:25 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

Sure thing. Our network has been down all morning but I think they have it back up. I will work on it now.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 10:24 AM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** Re: Vendor link

When you have a mock up, please send a link to me and Brom. He needs this today, please. Thanks, Jenni!

Jeff

Sent from my iPhone

On Feb 1, 2016, at 7:59 AM, Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)> wrote:

Yeah, I can make one of the boxes ask if they are offering free or in-kind services. It would seem like they would go to the donation button on the Help for Flint site for that, but I'll put it in there.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Sunday, January 31, 2016 8:55 PM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** Fwd: Vendor link

FYI. Can we do this?

Sent from my iPhone

Begin forwarded message:

**From:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Date:** January 31, 2016 at 8:13:46 PM EST  
**To:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Fwd: Vendor link

See the one requested change from the Gov's office. Please let me see the thing before we share it. Thanks.

Thanks.

Brom Stibitz

Begin forwarded message:

**From:** "Sachs, Tori (GOV)" <[SachsT@michigan.gov](mailto:SachsT@michigan.gov)>  
**Date:** January 31, 2016 at 7:44:33 PM EST  
**To:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Subject:** RE: Vendor link

Looks good. I think we would like to link to it from the flint water site(s). The only addition I would like to see is somewhere that people could check a box offering "free" or "in kind" services.

---

**From:** Stibitz, Brom (DTMB)  
**Sent:** Friday, January 29, 2016 5:41 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Vendor link

Tori – our plan would be to modify this form for your needs. We could put this up on whichever site you prefer. Or we could give you a link for use on the Flint site.

Can you let me know if you have any specific changes you would like to see?

(PLEASE DO NOT SEND ANYONE TO THIS LINK NOW)

<http://michigan.gov/micontractconnect/0,4541,7-225-56585---,00.html>

Brom Stibitz  
Chief Deputy Director  
Michigan Department of Technology, Management and Budget  
[stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004  
<image001.gif>

---

**From:** Bankowski, Jeffrey S. (DTMB)  
**Sent:** Monday, February 01, 2016 4:58 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** FW: Engagement Letter for Deloitte discussion

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**From:** Bankowski, Jeffrey S. (DTMB)  
**Sent:** Monday, February 01, 2016 4:56 PM  
**To:** 'Davidoff, Mark (US - Detroit)'; Woo, Rhoda H (US - New York); Schwerdtfeger, Kathryn (US - Austin); Akanoh, Linus Nnaemeka (US - Austin)  
**Subject:** RE: Engagement Letter for Deloitte discussion

Mark and D&T team,

Attached is a draft document -- we can discuss and walk through.

I will have Jeff Brownlee, our Chief Procurement Officer on the call as well.

I plan to walk through your existing document -- step 1 is to ensure this is the latest draft -- and then walk through some discussion items.

Best regards

Jeff



Final Engagement  
Letter VII (2...



DRAFT-Deliverable  
(3).docx

Jeffrey S. Bankowski

Chief Internal Auditor  
State of Michigan - Office of Internal Audit Services  
George W. Romney Building  
111 South Capitol Avenue -- 8<sup>th</sup> Floor  
Lansing, Michigan 48909  
Phone: (517) 373-9497  
Cell: (517) 898-3703



-----Original Appointment-----

**From:** Davidoff, Mark (US - Detroit) [<mailto:mdavidoff@deloitte.com>]

**Sent:** Monday, February 01, 2016 1:40 PM

**To:** Davidoff, Mark (US - Detroit); Bankowski, Jeffrey S. (DTMB); Woo, Rhoda H (US - New York); Schwerdtfeger, Kathryn (US - Austin); Akanoh, Linus Nnaemeka (US - Austin)

**Subject:** Engagement Letter for Deloitte discussion

**When:** Monday, February 01, 2016 5:00 PM-5:30 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:** 1-888-998-2663,,39633171#

January 18, 2016

Mr. John Roberts  
State Budget Director  
State of Michigan  
Romney Building  
111 S. Capitol Avenue  
Lansing, MI 48933

Dear Mr. Roberts,

This engagement letter is to confirm the engagement of Deloitte & Touche LLP ("Deloitte Advisory" or "we" or "our" or "us") to provide the State of Michigan and its agencies and subdivisions, to include the City of Flint (collectively, the "Organization" or "Client" or "you") crisis response and/or recovery services related to the water contamination crisis in the City of Flint Michigan that was signed as a Presidential Emergency Declaration on January 16, 2016 (the "event") described below (the "Services"). This letter is effective as of January 18, 2016.

We understand that the State of Michigan's objectives for this engagement is to have Deloitte support the response and recovery in the following ways:

- Become the trusted advisor and subject matter resource to the Client
- Serve as a liaison on behalf of the City with State, Federal, and other Stakeholders
- Help bring structure and organization to the crisis response and recovery efforts
- Provide other crisis response and recovery services to be defined by the Client as the crisis evolves

## **SCOPE, APPROACH, and DELIVERABLES**

We are prepared to provide consulting services and advice related to the event that will be based on discussions with you as the engagement progresses and as additional information is obtained during the course of the engagement. At this time we anticipate focusing on the following:

<sup>1</sup>As used in this engagement letter, "Deloitte Advisory" means Deloitte & Touche LLP, which provides audit and enterprise risk services; Deloitte Financial Advisory Services LLP, which provides forensic, dispute, and other consulting services; and its affiliate, Deloitte Transactions and Business Analytics LLP, which provides a wide range of advisory and analytics services. Deloitte Transactions and Business Analytics LLP is not a certified public accounting firm. These entities are separate subsidiaries of Deloitte LLP. Please see [www.deloitte.com/us/about](http://www.deloitte.com/us/about) for a detailed description of the legal structure of Deloitte LLP and its subsidiaries. Certain services may not be available to attest clients under the rules and regulations of public accounting.

- Supporting the Mayor in developing a new organization structure and decision matrix that covers governance and management activities of the City.
- Supporting the Mayor in assessing the current state of financial management reporting, understand the unique requirements given recent events, and provide recommendations on enhancing the City's overall financial management processes to provide stakeholders with the variety of information that will be necessary over time.

We anticipate this initial assessment phase of the engagement to last no more than 30 days. At the conclusion of the initial assessment period, a more detailed scope of services will be defined and mutually agreed to by the parties in a formal amendment to this engagement letter.

The Services will be performed in accordance with the *Statement on Standards for Consulting Services* that is issued by the American Institute of Certified Public Accountants ("AICPA").

We will provide our observations, advice, and recommendations, which we anticipate will be delivered orally. Written deliverables may be produced in support of the agreed scope, but will be owned and managed by the Client. The determination of any specific written deliverables to be produced will be agreed to by both parties and documented as the engagement progresses.

#### **ENGAGEMENT STAFFING**

Based on the information received to date, we have structured the following engagement team for the performance of the Services:

Mark Davidoff, Partner and Lead Client Services Partner for the State of Michigan, will oversee all services provided to the State regarding this event.

Rhoda Woo, Managing Director and Leader of Deloitte's National Crisis Management Solutions Practice, will serve as the crisis response advisor providing oversight over the day-to-day operations of the support team.

Kathie Schwerdtfeger, Partner and Leader of Deloitte's National Crisis Recovery Practice will serve as the crisis recovery advisor and will provide oversight over the day-to-day operations of the support team.

Linus Akanoh, Advisory Senior Manager, will serve as the lead senior manager directing the execution of day to day activities of Deloitte staff.

Additional assistance may also be provided by other professionals who will be identified during the course of this engagement. Furthermore, we will modify personnel, as needed, as additional information is received and will be mutually agreed upon with the Client.

#### **FEES, TIMING, AND OTHER SERVICES**

We are prepared to begin work on a mutually agreed-upon date following your acceptance of the terms of this letter.

Our fees will be based on the actual time spent at hourly rates that relate to the levels of experience of the individuals assigned to the engagement.

We anticipate that the estimate of fees for the initial assessment phase will not exceed \$50,000 each week. Should we determine that fees may exceed the weekly estimate, we will provide the Client with prior written notification prior to billing.

Fees for additional phases will be defined in subsequent amendments to this engagement letter.

Our rates are based upon our current understanding of the engagement requirements, our proposed approach, our estimate of the level of effort required, our roles and responsibilities, and any assumptions set forth herein. Fees will be billed biweekly and are payable upon receipt.

In addition to our fees, we will be reimbursed for all reasonable expenses incurred in performing the Services (including, but not limited to, our reasonable travel, meal, lodging, and mileage expenses). These expenses shall be billed at our incurred cost and added to our bi-weekly invoices.

Our fees and expenses are not contingent upon the final resolution of the crisis event that is the subject of this engagement. Based on our experience, issues sometimes arise that require procedures beyond what was initially anticipated. If this should occur, we will discuss it with you prior to performing any additional work.

## **ACKNOWLEDGEMENTS AND AGREEMENTS**

In connection with this engagement, the Client acknowledges and agrees to the following:

- The Client will provide a primary point-of-contact (POC) for the duration of the engagement. The Client POC will help coordinate interviews and meetings, obtain regular status updates, provide quick turnaround on identification or validation of input, and to obtain enterprise risk management knowledge transfer throughout the engagement.
- Timely identification of, availability of, and cooperation from stakeholders and other Client resources required at the various steps of the engagement, particularly for interviews in Phase 1.
- Should access to Client individuals be limited, the timeline and costs will be revised and discussed with you. Fees for this engagement will be billed bi-weekly and payable in accordance with the General Business Terms attached to this Engagement Letter as Exhibit A.
- The engagement will be scheduled to begin on an agreed date. Any delays in project initiation or timely assistance by Client personnel will delay the respective delivery dates and may increase the total fees beyond the amount set forth herein.
- Substantial and meaningful involvement of Client personnel is critical to the success of this engagement. The Client will be responsible for ensuring that the identified personnel actively participate in the planning and execution of this engagement.
- The Client will provide timely feedback, including feedback on each defined deliverable, within five

business days.

- The Client is solely responsible for, among other things: a) the performance of its personnel and agents; b) the accuracy and completeness of all data and information provided to Advisor for purposes of providing the services described; c) making all management decisions, performing all management functions, and assuming all management responsibilities; d) designating a competent management member to oversee the services; e) evaluating the adequacy and results of the services; f) accepting responsibility for the results of the services; and g) establishing and maintaining internal controls, including monitoring ongoing activities.
- Due to the nature of the crisis event, the specific scope of work will likely require modification during the initial phase of the engagement and as additional information is obtained throughout the engagement. Key modifications will be documented in a formal amendment and will be mutually agreed up by the parties.
- Deloitte Advisory may retain copies of the deliverables and any information evidencing Deloitte Advisory's performance of Services and any Client confidential information contained in such retained materials shall remain subject to Deloitte Advisory's confidentiality obligations set forth in the attached General Business Terms.
- Substantial and meaningful involvement of the Client's management officials responsible for coordination and oversight of the crisis response and recovery efforts, *e.g.*: field personnel, subject matter specialists, senior management, key executives, board members] of the State is critical to the success of this engagement. The Client is responsible for ensuring that (1) the identified Client personnel actively participate in both the planning and execution of this engagement and (2) Client personnel will be available to meet with the Deloitte Advisory's team as needed.
- The Client is responsible for all management decisions and external communications with the media, stakeholders, and others. We may provide advice and recommendations regarding the content of such external communications, but the Client will make final decisions. The Client will not disclose Deloitte Advisory's role externally without explicit written permission from us.
- The Client agrees that it will advise us in a timely manner of any applicable legal requirements concerning the Services to be provided by us, including, without limitation, the identification of any reports to be provided by us; the formats of, and filing deadlines for, such reports; and the legal requirements, if any, concerning the retention of our notes, draft reports, or other work product.
- The Services will not constitute an engagement to provide audit, compilation, review, or attestation services as described in the pronouncements on professional standards issued by the AICPA, the Public Company Accounting Oversight Board, or other regulatory body and, therefore, we will not express an opinion or other form of assurance with respect to our services.
- We will not provide any legal advice regarding this engagement or any assurance regarding the outcome of any future audit or regulatory examination or other regulatory action. The Client will be responsible for all regulatory and legal issues with respect to these matters.

- Deliverables provided under this engagement may be disclosed by the Client's independent accountants to the extent required solely in connection with their audit of the Client's financial statements.
- Deliverables provided under this engagement may be disclosed by the Client to the Flint City Council, State of Michigan legislature, and/or federal oversight authorities to include the Federal Emergency Management Agency and other federal agencies supporting the response and recovery efforts of the Client. This information is being provided to these entities for informational purposes and solely in the exercise of their statutory authority over the crisis response and recovery efforts of the Client.

\* \* \* \* \*

During the term of this engagement, the Client may request that we perform additional services that are not encompassed by this engagement letter. Deloitte Advisory may perform such additional services upon receipt of a separate, signed engagement letter with terms and conditions that are acceptable to Deloitte Advisory and the Client.

This engagement letter, together with the General Business Terms attached hereto [as Exhibit A] and made a part hereof, constitute the entire agreement between the Client and Deloitte Advisory with respect to this engagement, supersede all other oral and written representations, understandings, or agreements relating to this engagement, and may not be amended except by the mutual written agreement of the Client and Deloitte Advisory.

Please indicate your acceptance of this agreement by signing this engagement letter in the space provided below and returning this engagement letter to us. A duplicate of this engagement letter is provided for your records.

Very truly yours,

Deloitte & Touche LLP

By: \_\_\_\_\_  
Rhoda Woo, Partner

Accepted and agreed to by the State of Michigan on behalf of itself and its subsidiaries:

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT A — GENERAL BUSINESS TERMS**

1. **Services.** The services provided by Deloitte Advisory (the "Services") under the engagement letter to which these terms are attached (the "Engagement Letter") may include advice and recommendations, but Deloitte Advisory will not make any decisions on behalf of Client in connection with the implementation of such advice and recommendations. For purposes of these terms and the Engagement Letter, "Client" shall mean the entity as defined in the Engagement Letter.

2. **Payment of Invoices.** Client will compensate Deloitte Advisory under the terms of the Engagement Letter for the Services performed and expenses incurred, through the term or effective date of termination of this engagement. Deloitte Advisory's invoices are due upon receipt. If payment is not received within thirty (30) days of receipt of an invoice (a) such invoice shall accrue a late charge equal to the lesser of (i) 1½% per month or (ii) the highest rate allowable by law, in each case compounded monthly to the extent allowable by law, and (b) Deloitte Advisory may also suspend or terminate the Services. Client shall be responsible for any taxes imposed on the Services or on this engagement, other than taxes imposed by employment withholding for Deloitte Advisory's personnel or on Deloitte Advisory's income or property.

3. **Term.** Unless terminated sooner as set forth below, this engagement shall terminate upon the completion of the Services. Either party may terminate this engagement, with or without cause, by giving thirty (30) days' prior written notice to the other party. In the event of a termination for cause, the breaching party shall have the right to cure the breach within the notice period. Deloitte Advisory may terminate this engagement upon written notice to Client if Deloitte Advisory determines that the performance of any part of the Services would be in conflict with law, or independence or professional rules.

4. **Deliverables.**

a) Deloitte Advisory has rights in, and may, in connection with the performance of the Services, use, create, modify, or acquire rights in, works of authorship, materials, information, and other intellectual property (collectively, the "Deloitte Advisory Technology").

b) Upon full payment to Deloitte Advisory hereunder, and subject to the terms and conditions contained herein, (i) the tangible items specified as deliverables or work product in the Engagement Letter (the "Deliverables") shall become the property of Client, and (ii) Deloitte Advisory hereby grants Client a royalty-free, fully paid-up, worldwide, nonexclusive license to use the Deloitte Advisory Technology contained in the Deliverables in connection with the use of such Deliverables. Except for the foregoing license grant, Deloitte Advisory or its licensors retain all rights in and to all Deloitte Advisory Technology.

c) To the extent any Deloitte Advisory Technology provided to Client hereunder constitutes inventory within the meaning of section 471 of the Internal Revenue Code, such Deloitte Advisory Technology is licensed to Client by Deloitte Advisory as agent for Deloitte & Touche Products Company LLC on the terms and conditions contained herein. The rights granted in this Section 4 do not apply to any Deloitte Advisory Technology that is subject to a separate license agreement between Client and any third party (including Deloitte Advisory's affiliates).

5. **Limitation on Warranties.** This is a services engagement. Deloitte Advisory warrants that it shall perform the Services in good faith and with due professional care. DELOITTE ADVISORY

DISCLAIMS ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

6. **Limitation on Damages and Indemnification.**

a) Deloitte Advisory, its subsidiaries and subcontractors, and their respective personnel shall not be liable to Client for any claims, liabilities, or expenses relating to this engagement ("Claims") for an aggregate amount in excess of the fees paid by Client to Deloitte Advisory pursuant to this engagement, except to the extent resulting from the recklessness, bad faith, or intentional misconduct of Deloitte Advisory or its subcontractors. In no event shall Deloitte Advisory, its subsidiaries or subcontractors, or their respective personnel be liable to Client for any loss of use, data, goodwill, revenues, or profits (whether or not deemed to constitute a direct Claim), or any consequential, special, indirect, incidental, punitive, or exemplary loss, damage, or expense relating to this engagement.

b) In circumstances where any limitation on damages or indemnification provision hereunder is unavailable, the aggregate liability of Deloitte Advisory, its subsidiaries and subcontractors, and their respective personnel for any Claim shall not exceed an amount that is proportional to the relative fault that the conduct of Deloitte Advisory and its subcontractors bears to all other conduct giving rise to such Claim.

7. **Client Responsibilities.** Client shall cooperate with Deloitte Advisory in the performance of the Services, including providing Deloitte Advisory with reasonable facilities and timely access to data, information, and personnel of Client. With respect to the data and information provided by Client to Deloitte Advisory or its subcontractors for the performance of the Services, Client shall have all rights required to provide such data and information, and shall do so only in accordance with applicable law and with any procedures agreed upon in writing. Client shall be solely responsible for, among other things (a) the performance of its personnel and agents; (b) the accuracy and completeness of all data and information provided to Deloitte Advisory for purposes of the performance of the Services; (c) making all management decisions, performing all management functions, and assuming all management responsibilities; (d) designating a competent management member to oversee the Services; (e) evaluating the adequacy and results of the Services; (f) accepting responsibility for the results of the Services; and (g) establishing and maintaining internal controls, including monitoring ongoing activities. Deloitte Advisory's performance is dependent upon the timely and effective satisfaction of Client's responsibilities hereunder and timely decisions and approvals of Client in connection with the Services. Deloitte Advisory shall be entitled to rely on all decisions and approvals of Client.

8. **Force Majeure.** Neither party shall be liable for any delays or nonperformance directly or indirectly resulting from circumstances or causes beyond its reasonable control, including fire, epidemic or other casualty, act of God, strike or labor dispute, war or other violence, or any law, order, or requirement of any governmental agency or authority.

9. **Limitation on Actions.** No action, regardless of form, relating to this engagement, may be brought by either party more than one year after the cause of action has accrued, except that an action for nonpayment may be brought by a party not later than one year following the due date of the last payment owing to the party bringing such action.



10. **Independent Contractor.** Each party hereto is an independent contractor and neither party is, nor shall be considered to be, nor shall purport to act as, the other's agent, partner, fiduciary, joint venturer, or representative.

11. **Confidentiality and Internal Use.**

a) All Services and Deliverables shall be solely for Client's benefit, and are not intended to be relied upon by any person or entity other than Client. Client shall not disclose the Services or Deliverables, or refer to the Services or Deliverables in any communication, to any person or entity except (i) as specifically set forth in the Engagement Letter, or (ii) to Client's contractors solely for the purpose of their providing services to Client relating to the subject matter of this engagement, provided that such contractors comply with the restrictions on disclosure set forth in this sentence. Client, however, may create its own materials based on the content of such Services and Deliverables and use and disclose such Client-created materials for external purposes, provided that, Client does not in any way, expressly or by implication, attribute such materials to Deloitte Advisory or its subcontractors.

b) To the extent that, in connection with this engagement, either party (each, the "receiving party") comes into possession of any confidential information of the other (the "disclosing party"), it will not disclose such information to any third party without the disclosing party's consent, using at least the same degree of care as it employs in maintaining in confidence its own confidential information of a similar nature, but in no event less than a reasonable degree of care. The disclosing party hereby consents to the receiving party disclosing such information: (i) as expressly permitted in the Engagement Letter; (ii) to contractors providing administrative, infrastructure, and other support services to the receiving party and subcontractors providing services in connection with this engagement, in each case, whether located within or outside of the United States, provided that such contractors and subcontractors have agreed to be bound by confidentiality obligations similar to those in this Section 11(b); (iii) as may be required by law or regulation, or to respond to governmental inquiries, or in accordance with applicable professional standards or rules, or in connection with litigation or arbitration pertaining hereto; or (iv) to the extent such information (a) is or becomes publicly available other than as the result of a disclosure in breach hereof, (b) becomes available to the receiving party on a nonconfidential basis from a source that the receiving party believes is not prohibited from disclosing such information to the receiving party, (c) is already known by the receiving party without any obligation of confidentiality with respect thereto, or (d) is developed by the receiving party independently of any disclosures made to the receiving party hereunder. Nothing in this Section 11(b) shall alter Client's obligations under Section 11(a). Deloitte Advisory, however, may use and disclose any knowledge and ideas acquired in connection with the Services to the extent they are retained in the unaided memory of its personnel.

12. **Survival and Interpretation.** All provisions that are intended by their nature to survive performance of the Services shall survive such performance, or the expiration or termination of this engagement. For purposes of these terms and the Engagement Letter, "Deloitte Advisory" or "Advisor" shall mean Deloitte & Touche LLP. Each of the provisions of these terms shall apply to the fullest extent of the law, whether in contract, statute, tort (such as *negligence*), or otherwise, notwithstanding the failure of the essential purpose of any remedy. Any references herein to the term "including" shall be deemed to be followed by "without limitation."

13. **Assignment and Subcontracting.** Except as provided below, neither party may assign any of its rights or obligations (including interests or Claims) relating to this engagement or the Services, without the prior written consent of the other party. Client hereby consents to Deloitte Advisory subcontracting or assigning any portion of the Services to any affiliate or related entity, whether located within or outside of the United States. Services performed hereunder by Deloitte Advisory's subcontractors shall be invoiced as professional fees on the same basis as Services performed by Deloitte Advisory's personnel unless otherwise agreed.

14. **Waiver of Jury Trial.** THE PARTIES HEREBY IRREVOCABLY WAIVE, TO THE FULLEST EXTENT PERMITTED BY LAW, ALL RIGHTS TO TRIAL BY JURY IN ANY ACTION, PROCEEDING, OR COUNTERCLAIM RELATING TO THIS ENGAGEMENT.

14. **Dispute Resolution.** Any controversy or claim between the parties arising out of or relating to these terms, the Engagement Letter, or this engagement (a "Dispute") shall be resolved by mediation or binding arbitration as set forth below.

- a) **Mediation.** All Disputes shall first be submitted to nonbinding confidential mediation by written notice to the parties, and shall be treated as compromise and settlement negotiations under the standards set forth in the Federal Rules of Evidence and all applicable state counterparts, together with any applicable statutes protecting the confidentiality of mediations or settlement discussions. If the parties cannot agree on a mediator, the International Institute for Conflict Prevention and Resolution ("CPR"), at the written request of a party, shall designate a mediator.
- b) **Arbitration Procedures.** If a Dispute has not been resolved within 90 days after the effective date of the written notice beginning the mediation process (or such longer period, if the parties so agree in writing), the mediation shall terminate and the Dispute shall be settled by binding arbitration to be held in New York, New York. The arbitration shall be conducted in accordance with the CPR Rules for Non-Administered Arbitration that are in effect at the time of the commencement of the arbitration, except to the extent modified by this Section 14 (the "Rules"). The arbitration shall be conducted before a panel of three arbitrators. Each of Client and Deloitte Advisory shall designate one arbitrator in accordance with the "screened" appointment procedure provided in the Rules and the two party-designated arbitrators shall jointly select the third in accordance with the Rules. No arbitrator may serve on the panel unless he or she has agreed in writing to enforce the terms of the Engagement Letter (and its appendices) and to abide by the terms of this Section 14. Except with respect to the interpretation and enforcement of these arbitration procedures (which shall be governed by the Federal Arbitration Act), the arbitrators shall apply the governing law set forth in Section 18 in connection with the Dispute. The arbitrators shall have no power to award damages inconsistent with these terms or the Engagement Letter, including the limitation on liability and indemnification provisions contained herein. The arbitrators may render a summary disposition relative to all or some of the issues, provided that the responding party has had an adequate opportunity to respond to any such application for such disposition. Discovery shall be conducted in accordance with the Rules. All aspects of the arbitration shall be treated as confidential, as provided in the Rules. Before making any disclosure permitted by the Rules, a party shall give written notice to all other parties and afford such parties a reasonable opportunity to protect their interests. Further judgment on the arbitrators' award may be entered in any court having jurisdiction.

- c) **Costs.** Each party shall bear its own costs in both the mediation and the arbitration; however, the parties shall share the fees and expenses of both the mediators and the arbitrators equally.

15. **Non-exclusivity.** Deloitte Advisory may (a) provide any services to any person or entity, and (b) develop for itself, or for others, any materials or processes, including those that may be similar to those produced as a result of the Services, provided that Deloitte Advisory complies with its obligations of confidentiality set forth hereunder.

16. **Non-solicitation.** During the term of this engagement and for a period of one (1) year thereafter, each party agrees that its personnel (in their capacity as such) who had substantive contact with personnel of the other party in the course of this engagement shall not, without the other party's consent, directly or indirectly employ, solicit, engage, or retain the services of such personnel of the other party. In the event a party breaches this provision, the breaching party shall be liable to the aggrieved party for an amount equal to thirty percent (30%) of the annual base compensation of the relevant personnel in his or her new position. Although such payment shall be the aggrieved party's exclusive means of monetary recovery from the breaching party for breach of this provision, the aggrieved party shall be entitled to seek injunctive or other equitable relief. This provision shall not restrict the right of either party to solicit or recruit generally in the media.

17. **Entire Agreement, Amendment, and Notices.** These terms, and the Engagement Letter, including attachments, constitute the entire agreement between the parties with respect to this engagement; supersede all other oral and written representations, understandings, or agreements relating to this engagement; and may not be amended except by a written agreement signed by the parties. In the event of any conflict or ambiguity between these terms and the Engagement Letter, these terms shall control. All notices hereunder shall be (a) in writing; (b) delivered to the representatives of the parties at the addresses set forth in the Engagement Letter, unless changed by either party by notice to the other party; and (c) effective upon receipt.

18. **Governing Law, Jurisdiction and Venue, and Severability.** These terms, the Engagement Letter, including attachments, and all matters relating to this engagement shall be governed by, and construed in accordance with, the laws of the State of New York (without giving effect to the choice of law principles thereof). If any provision of these terms or the Engagement Letter is unenforceable, such provision shall not affect the other provisions, but such unenforceable provision shall be deemed modified to the extent necessary to render it enforceable, preserving to the fullest extent permissible the intent of the parties set forth herein.

DELIVERABLE	ACCEPTANCE CRITERIA	METHOD OF DELIVERY	POTENTIAL MITIGATION
<b>WEEK1: PROJECT PLAN</b> Confirm deliverables, activities, and overall project management schedules. Begin construct of relevant cash flow modeling for the City of Flint and ongoing use by the State of Michigan Treasury, include within the financial model applicable City Services regarding water and sewer.	<b>Timeliness</b> - Project Plan completed within 5 business days of award <b>Report</b> - Weekly status report #1 issued which includes status update on cash flow project <b>Quality</b> - Project Plan validated and agreed to by client and project team	Electronic & Hardcopy	Draft Review
<b>WEEK 2: AS-IS DOCUMENTATION FOR FINANCIAL MANAGEMENT REPORTING</b> Develop baseline understanding of current data, process, change-readiness, and need to inform the development of the variety of information that will be necessary given the recent events. Continue relevant cash flow modeling and assess processes for City tracking of State and Federal funds. Detail key themes and findings and recommendations.	<b>Timeliness</b> - As-Is Documentation Review completed within 10 business days of award <b>Report</b> - Weekly Status Report #2 issued <b>Quality</b> - Key themes, findings, and recommendations are validated and agreed to by client and project team	Electronic & Hardcopy	Draft Review
<b>WEEK 3: HIGH-LEVEL ASSESSMENT OF ORGANIZATION STRUCTURE AND DECISION MAXTRIX FOR GOVERNANCE</b> Identify current capabilities and challenges and gain a deeper understanding of how the City currently measures operating and financial performance and performs governance. Provide key themes and recommendations on a new organization structure and decision matrix	<b>Timeliness</b> - High Level Assessment of Organizational Structure completed within 15 business days of award <b>Report</b> - Weekly Status Report #3 Issued <b>Quality</b> - Findings include current maturity of organizational structure and governance model. Provide recommendations and address opportunities from improvement	Electronic & Hardcopy	Draft Review
<b>WEEK 4: FINAL ASSESSMENT FRAMEWORK AND IMPLEMENTATION ROADMAP</b> Provide final assessment matrix for evaluating organizational structure and financial management reporting. Provide summary of findings, recommend improvements, and timeline for application of roadmap beyond current phase	<b>Timeliness</b> - Assessment Framework completed within 30 business days of award <b>Report</b> - Weekly Status Report #4 Issued as well as final assessment framework and roadmap <b>Quality</b> - Assessment Framework validated and agreed to by client and project team	Electronic & Hardcopy	Draft Review
<b>WEEK 4: LEADING PRACTICES</b> Summarize leading practices regarding the crisis management lifecycle. Assess existing opportunities including response to recovery.	<b>Timeliness</b> - Provide leading practices and gap assessment against existing current state within 30 business days of award <b>Quality</b> - Validated and agreed to by client and project team	Electronic & Hardcopy	Draft Review

## Deliverable and Payment Schedule

DELIVERABLE	DELIVERABLE NUMBER	PAYMENT ID	PERCENT OF TOTAL MILESTONE PAYMENTS	PAYMENT AMOUNT
PROJECT PLAN / WEEK 1 REPORT	D01	PMT1	10%	\$ 20,000.00
AS-IS DOCUMENTATION FOR FINANCIAL MANAGEMENT REPORTING / WEEK 2 REPORT	D02	PMT2	25%	\$ 50,000.00
HIGH-LEVEL ASSESSMENT OF ORGANIZATIONAL STRUCTURE AND DECISION MAXTRIX AND WEEK 3 REPORT	D03	PMT3	25%	\$ 50,000.00
FINAL ASSESSMENT FRAMEWORK AND IMPLEMENTATION ROADMAP AND WEEK 4 REPORT	D04	PMT4	35%	\$ 70,000.00
LEADING PRACTICES BENCHMARKING	D05	PMT5	5%	\$ 10,000.00
TOTAL				\$ 200,000.00

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**From:** Roberts, John (DTMB)  
**Sent:** Monday, February 01, 2016 11:25 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Re: Flint/Emergency purchasing

Do you have time to chat tomorrow afternoon?

John Roberts

On Jan 30, 2016, at 3:52 PM, Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)> wrote:

Sounds like it's still a bit of a mess. There is a meeting on Tuesday with some folks in your shop, MSP, and DTMB. I am going to attend it and do my best to put this to bed. I sent Capt. Kelenski a copy of a memo I plan to distribute after that meeting provided there are no surprises which render my memo incorrect. He agreed with all material aspects of it, sending me only minor edits.

Attached is the memo. Any feedback you have is welcomed.

I'm worried about contracting related to the situation in general, but I heard on Friday (I think it was via Brom) that Bankowski is now engaged and working closely with Rich. Let me know if you want to talk about that statement of work from the accounting firm. I had some concerns which I shared with Brom.

Enjoy the rest of your weekend! Thanks for reaching out.

Thanks,  
Jeff

---

**From:** Roberts, John (DTMB)  
**Sent:** Saturday, January 30, 2016 3:40 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Flint/Emergency purchasing

Do you have everything you need now?

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 10:26 AM  
**To:** Roberts, John (DTMB); Stibitz, Brom (DTMB); Behen, David (DTMB); Duncan, Nancy (DTMB)  
**Cc:** Wellman, Jeff (DTMB); Minix, Connie (DTMB); Donnan, Chanda (DTMB)  
**Subject:** Flint/Emergency purchasing

Keeping this within DTMB for an initial discussion. I'd like to get 10 minutes with you all re: the emergency purchasing going on for Flint. The operating model currently in place is not working well according to my procurement leadership team (reps from all agencies) and my staff. I fear if we don't get ahead of this now, we may be causing ourselves some headaches down the road. More details when we talk.

If John and David agree to a call, Connie and Chanda, will you please coordinate? Thank you.

Jeff

<DTMB Procurement - Memo to Agency Purchasing Management - Key Emergency ....docx>

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**From:** Riehle, Jenni (DTMB)  
**Sent:** Tuesday, February 02, 2016 8:18 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Vendor link

I am unsure how to add a "check box" but you will see in the picture of the form that I have a field that says "Are you offering any free or in-kind products or services. (If Applicable)" They can fill that out if they do. Is that not sufficient? I can connect with eMichigan to see if they can create a check box instead of an open field like we currently have.

The submissions to these forms are not sent into a database. They come as individual emails (checkbox or not). I could put them into a database as they come in so they could be sorted based on fields as you are suggesting. I also could put it on our intranet or a team room where other people could access it. Let me know if that is something you want to do.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 4:49 PM  
**To:** Riehle, Jenni (DTMB) <RiehleJ2@michigan.gov>  
**Subject:** RE: Vendor link

How much work to add that checkbox? Would that allow us to sort via list/database all vendors that offered free services?

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 1, 2016 4:45 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

Okay, I take back the 30 seconds. I just got an email from eMichigan saying that my admin cache button is going to be wonky while they try to improve the security on the website, so if we get an okay for the form it might take up to an hour to show to the public now. My apologies, I didn't see that one coming.

Thanks - Jenni

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 01, 2016 11:02 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

About 30 seconds.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 11:01 AM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** RE: Vendor link



Looks good to me! Checking with Brom in a few minutes. How long will it take to move it to production once I confirm with Brom?

---

**From:** Riehle, Jenni (DTMB)

**Sent:** Monday, February 1, 2016 10:54 AM

**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>

**Subject:** RE: Vendor link

Hi Jeff,

I made a new tab specifically for this instead of redoing the vendor gateway. I am unable to send you a link because it is not a live page yet and you do not have access to the back end of the system. I have the below screen shot however. We can provide them this direct link or vendors can access this page by clicking on the left hand tab off of the Contract Connect website. These submissions will be sent to our general email box [dtmb-micontractconnect@michigan.gov](mailto:dtmb-micontractconnect@michigan.gov).

Please let me know of any changes you have. Thanks!

Jenni

Training

State Administrative Board

Register as a Vendor

Programs and Policies

Local Government

Vendor Gateway

Contact Us

Flint Emergency Purchasing

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NEW

CONTRACT CONNECT / FLINT EMERGENCY PURCHASING /



## Flint Emergency Purchasing

Vendors who are interested in selling goods or services to the state to aid in the Flint crises may use the following form to notify state representatives of their solutions. All submissions will be reviewed but not all vendors will be contacted.

Vendors should also register their business on the state's bid posting website [www.Buy4Michigan.com](http://www.Buy4Michigan.com) to find current contracting opportunities with the state. Additional information on the state's contracting process, including training material, policies, and more can be found on [www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect).

### Supplier's Submission Form

\* indicates a required field

Company \*

Location

Phone (main number)\*

Web site

Contact name \*

Title

Direct Phone \*

Contact email address \*

Re-entered email address \*

Name of commodities, services, or technology that you wish to supply to assist with the Flint water emergency\*

Description \*

URL for product/service info

Are you offering any free or in-kind products or services? (if applicable)

Comments/questions

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 01, 2016 10:25 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

Sure thing. Our network has been down all morning but I think they have it back up. I will work on it now.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 10:24 AM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** Re: Vendor link

When you have a mock up, please send a link to me and Brom. He needs this today, please. Thanks, Jenni!

Jeff

Sent from my iPhone

On Feb 1, 2016, at 7:59 AM, Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)> wrote:

Yeah, I can make one of the boxes ask if they are offering free or in-kind services. It would seem like they would go to the donation button on the Help for Flint site for that, but I'll put it in there.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Sunday, January 31, 2016 8:55 PM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** Fwd: Vendor link

FYI. Can we do this?

Sent from my iPhone

Begin forwarded message:

**From:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Date:** January 31, 2016 at 8:13:46 PM EST  
**To:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Fwd: Vendor link

See the one requested change from the Gov's office. Please let me see the thing before we share it. Thanks.

Thanks.

Brom Stibitz

Begin forwarded message:

**From:** "Sachs, Tori (GOV)" <[SachsT@michigan.gov](mailto:SachsT@michigan.gov)>  
**Date:** January 31, 2016 at 7:44:33 PM EST  
**To:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Subject:** RE: Vendor link

Looks good. I think we would like to link to it from the flint water site(s). The only addition I would like to see is somewhere that people could check a box offering "free" or "in kind" services.

---

**From:** Stibitz, Brom (DTMB)  
**Sent:** Friday, January 29, 2016 5:41 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Vendor link

Tori – our plan would be to modify this form for your needs. We could put this up on whichever site you prefer. Or we could give you a link for use on the Flint site.

Can you let me know if you have any specific changes you would like to see?

(PLEASE DO NOT SEND ANYONE TO THIS LINK NOW)

<http://michigan.gov/micontractconnect/0,4541,7-225-56585---,00.html>

Brom Stibitz  
Chief Deputy Director  
Michigan Department of Technology, Management and Budget  
[stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004  
<image001.gif>



**Procurement Leadership Team  
Agenda  
January 20, 2016  
1:00 – 2:30  
Katherine Cushman Conference Room**

**Flint**

- Maintain a log of all activity related to the city of Flint and the emergency
- SEOC is coordinating
- FEMA – will they be quarterbacking? Regardless, the State must stay engaged

1. **Contract Fundamentals Class** 1:00 – 1:03  
- January 27, 2016 1-2:30 Michigan Historical Auditorium

Genevieve Hayes

1. FOIA Fundamentals – February 3 9-11:30, call in option, registration not necessary, only required if you did not attend last year
2. New Employee Orientation – if you have any new employees who you want to attend contact Genevieve. This has not been scheduled yet.
3. SOW 101 – handful on wait list – let Genevieve know if interested.
4. Standard Contract Terms – last class held in late 2014 – conducted by AG. Tentative date is 3/21, only required if you did not attend last year
5. Insurance Training – April 22 – 9:00 Con Con, only required if you did not attend last year

2. **PLT Meeting Membership (Jeff B.)** 1:03 – 1:15  
Considering allowing the procurement executive to change who is in the biweekly meetings. If your duties expand beyond “procurement” you may want to consider sending your procurement chief. Attendance is also open to you and your procurement chief. Please contact Jeff B if you would like to send someone.

Plan is to begin quarterly meetings with the procurement executives.

3. **Policy (Heather)** 1:15 – 2:00
- a. Chapter 10 – modified version posted 1/13/2016
  - b. Chapter 11 – final posted 1/13/2016
  - c. Chapter 12 – Feedback was due 1/19 – Policy Review Team 1/22
    - Any input at this time?
    - Clarification requested and provided on administrative and substantive changes related to increase in contract value
  - d. Chapter 5
    - i. User Guide – finalized based on feedback (will provide with meeting notes-modifications to be made and sent out ASAP)
    - ii. Request for Quote – solicitation method – phone quotes instead of written because of remote locations

Phone quotes are not the most transparent. Chapter 5 as written will be effective February 1, 2016. Must make reasonable effort to obtain at least three written quotes for \$2,500.01 - \$10,000 purchases. Buy4Michigan is always an option.

- iii. **Buy4Michigan exemption – Chapter 5 - “Any deviation from the requirements identified in this Chapter must be approved by the Chief Procurement Officer.”** Chapter 5 updated and copy provided of language that is modified to address requests for CPO approval on posting requirements. Advised Chapter 5 would be updated.

Team member has recommendations for changes to Chapter 5. Communicated collection of recommended changes, and advised that updates would be made in the future.

#### 4. Walk Ins

2:00 – 2:10

Sharon

- meetings with agencies scheduled throughout fiscal year
- surveys will be sent out soon requesting 1. contract options, 2. Transition time, and 3. look at Chapter 5 and see if ITN should be used, or if the exception for extending a contract based on useful life can be used
- Process Team – a report will be provided to the PLT soon. Provided an example of some work that is being done such as Forms Team recommended out of 53 forms, 24 of them are to be eliminated or consolidated
- Ad Board – combine F/C and Ad Board agenda dates, and increase threshold
- Discussed invitation to negotiate solicitation method and that the result may be a direct solicitation

ChangePoint

- iTRAC replacement with ChangePoint – agency expressed concern with this change. It was communicated that it is understood that iTRAC is the primary way to communicate internally at agencies, and with that said Central Procurement is also looking at new technology. Communicated that every state employee would be able to link from iTRAC to SharePoint and that the information is more substantial than could be.
- Confirmed that this solution would be for all RFPs and not for all iTRACS. For change notices the office would have a report to include status/comments and planned finish dates.
- Currently business analysts assign the iTRAC request to buyers and then develop a schedule based on current SLAs. The buyers will then finalize the agreed to schedule with the agency.
- If a schedule is not met the agency and buyer will get back together to reset the schedule and a formal change will be provided to increase transparency
- The system allows you to sort within your agency
- Expected to be implemented by April/May 2016 – possibly beforehand.

? How is the staffing going – what did you fill with the 19?

- Ran through general hires, and open vacancies

What is the role of the Business Analyst?

- Assisting division directors and buyers
- Will be critical to ChangePoint – reviewing status of projects and reporting to division directors
- Running reports/ assigning work
- Assist with processing change notices if demand is high/tight schedules
- Research
- Etc. continually developing

Natalie

- Moving depot to the GSB Warehouse in April. April 1 – 10 there may be impact on delivery and depot buys
- Anticipate that shipping will stop before April 1

FYI MMCC out for bid and expect award in summer–

- VMS – change to how vendor sent to Ad Board and informational meeting scheduled for 2/11/16 in State library. Notice will be sent.



**Procurement Leadership Team  
Agenda  
February 3, 2016  
1:00 – 2:30  
Katherine Cushman Conference Room**

- |                                                                                              |             |
|----------------------------------------------------------------------------------------------|-------------|
| 1. SIGMA Update (Shelley)                                                                    | 1:00 – 1:15 |
| 2. Protest                                                                                   | 1:15 – 1:20 |
| 3. Procurement – Flint (Jeff)                                                                | 1:20 – 1:25 |
| 4. iTRAC Comments (Jeff)                                                                     | 1:25 – 1:30 |
| 5. Phase II Kickoff (Jeff)                                                                   | 1:30 – 1:35 |
| 6. Policy (Heather)                                                                          | 1:35 – 2:05 |
| a. Chapter 12 – Feedback was due 1/19 – Policy Review Team 1/22<br>- Any input at this time? |             |
| b. Chapter 5<br>- User Guide                                                                 |             |
| 7. Operational Updates (Sharon)                                                              | 2:05 – 2:15 |
| 8. Walk Ins                                                                                  | 2:15 – 2:30 |



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**From:** Burger, Penelope (MSP)  
**Sent:** Wednesday, February 03, 2016 11:42 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Re: Flint Emergency Purchasing Procedures

Thank you for getting this out. I think the more we communicate with all agencies the better we are going to be.

Penny

Sent from my iPhone

On Feb 3, 2016, at 11:39 AM, Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)> wrote:

Here is a copy of the communication that went out yesterday—the letter I brought up in the 11:00 meeting.

Thanks,  
Jeff

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 2, 2016 2:34 PM  
**To:** Arbulu, Agustin (MDCR) <[ArbuluA@michigan.gov](mailto:ArbuluA@michigan.gov)>; Arwood, Steve (LARA) <[ArwoodS@michigan.gov](mailto:ArwoodS@michigan.gov)>; Clover Adams, Jamie (MDARD) <[CloveradamsJ@michigan.gov](mailto:CloveradamsJ@michigan.gov)>; Creagh, Keith (DEQ) <[creaghk@michigan.gov](mailto:creaghk@michigan.gov)>; Etue, Kriste (MSP) <[EtueK@michigan.gov](mailto:EtueK@michigan.gov)>; Johnson, Ruth (MDOS) <[JohnsonR43@michigan.gov](mailto:JohnsonR43@michigan.gov)>; Khouri, Nick (TREASURY) <[KhouriN@michigan.gov](mailto:KhouriN@michigan.gov)>; Lyon, Nick (DHHS) <[LyonN2@michigan.gov](mailto:LyonN2@michigan.gov)>; Maj. Gen. Gregory Vadnais DMVA <[gregory.j.vadnais.mil@mail.mil](mailto:gregory.j.vadnais.mil@mail.mil)>; McPharlin, Pat (DIFS) <[McPharlinP@michigan.gov](mailto:McPharlinP@michigan.gov)>; Moritz, William (DNR) <[MoritzW@michigan.gov](mailto:MoritzW@michigan.gov)>; Roberts, John (DTMB) <[RobertsJ9@michigan.gov](mailto:RobertsJ9@michigan.gov)>; Schuette, Bill (AG) <[SchuetteB@michigan.gov](mailto:SchuetteB@michigan.gov)>; Steudle, Kirk (MDOT) <[SteudleK@michigan.gov](mailto:SteudleK@michigan.gov)>; Washington, Heidi E. (MDOC) <[WashingtonM6@michigan.gov](mailto:WashingtonM6@michigan.gov)>; Whiston, Brian (MDE) <[WhistonB@michigan.gov](mailto:WhistonB@michigan.gov)>; Winters, Jan (MCSC) <[WintersJ@michigan.gov](mailto:WintersJ@michigan.gov)>; Zimmer, Mike (LARA) <[zimmerm@michigan.gov](mailto:zimmerm@michigan.gov)>; Allan, Jon (DEQ) <[AllanJ@michigan.gov](mailto:AllanJ@michigan.gov)>; Barnes, Jeff (DMVA) <[barnesi7@michigan.gov](mailto:barnesi7@michigan.gov)>; Bowen, Scott (MSL) <[bowensi1@michigan.gov](mailto:bowensi1@michigan.gov)>; Brader, Valerie (LARA) <[braderv@michigan.gov](mailto:braderv@michigan.gov)>; Comai, Stephanie (TIA) <[ComaiS1@michigan.gov](mailto:ComaiS1@michigan.gov)>; Deloney, Andrew (LARA) <[DeloneyA@michigan.gov](mailto:DeloneyA@michigan.gov)>; Elsenheimer, Kevin (MSHDA) <[ElsenheimerK@michigan.gov](mailto:ElsenheimerK@michigan.gov)>; Goei, Bing (LARA) <[GoelB@michigan.gov](mailto:GoelB@michigan.gov)>; Hawks, Orlene (DTMB) <[HawksO@michigan.gov](mailto:HawksO@michigan.gov)>; Kalm, Rick (MGCB) <[KalmR@michigan.gov](mailto:KalmR@michigan.gov)>; Ringler, Doug (OAG) <[dringler@audgen.michigan.gov](mailto:dringler@audgen.michigan.gov)>; Waalkes, Marie (DTMB) <[WaalkesM1@michigan.gov](mailto:WaalkesM1@michigan.gov)>  
**Subject:** Flint Emergency Purchasing Procedures

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee  
Ofc: 517-284-7003  
Cell: 517-930-3472

<Flint Emergency Purchasing Procedures.pdf>

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**From:** Buhs, Caleb (DTMB)  
**Sent:** Wednesday, February 03, 2016 3:46 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Flint Emergency Purchasing Procedures

I'm not sure either. I'm guessing that they are getting a lot of emails these days and it probably was lost in the overall mix.

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, February 3, 2016 3:34 PM  
**To:** Buhs, Caleb (DTMB) <BuhsC@michigan.gov>  
**Subject:** FW: Flint Emergency Purchasing Procedures

This was sent yesterday. Nick was on the distribution list; not sure what happened.

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 2, 2016 2:34 PM  
**To:** Arbulu, Agustin (MDCR) <ArbuluA@michigan.gov>; Arwood, Steve (LARA) <ArwoodS@michigan.gov>; Clover Adams, Jamie (MDARD) <CloveradamsJ@michigan.gov>; Creagh, Keith (DEQ) <creaghk@michigan.gov>; Etue, Kriste (MSP) <EtueK@michigan.gov>; Johnson, Ruth (MDOS) <JohnsonR43@michigan.gov>; Khouri, Nick (TREASURY) <KhouriN@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>; Maj. Gen. Gregory Vadnais DMVA <gregory.l.vadnais.mil@mail.mil>; McPharlin, Pat (DIFS) <McPharlinP@michigan.gov>; Moritz, William (DNR) <MoritzW@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>; Schuette, Bill (AG) <SchuetteB@michigan.gov>; Steudle, Kirk (MDOT) <SteudleK@michigan.gov>; Washington, Heidi E. (MDOC) <WashingtonM6@michigan.gov>; Whiston, Brian (MDE) <WhistonB@michigan.gov>; Winters, Jan (MCSC) <WintersJ@michigan.gov>; Zimmer, Mike (LARA) <zimmerm@michigan.gov>; Allan, Jon (DEQ) <AllanJ@michigan.gov>; Barnes, Jeff (DMVA) <barnesj7@michigan.gov>; Bowen, Scott (MSL) <bowens1@michigan.gov>; Brader, Valerie (LARA) <braderv@michigan.gov>; Comai, Stephanie (TIA) <ComaiS1@michigan.gov>; Deloney, Andrew (LARA) <DeloneyA@michigan.gov>; Elsenheimer, Kevin (MSHDA) <ElsenheimerK@michigan.gov>; Goei, Bing (LARA) <GoeiB@michigan.gov>; Hawks, Orlene (DTMB) <HawksO@michigan.gov>; Kalm, Rick (MGCB) <KalmR@michigan.gov>; Ringler, Doug (OAG) <dringler@audgen.michigan.gov>; Waalkes, Marie (DTMB) <WaaikesM1@michigan.gov>  
**Subject:** Flint Emergency Purchasing Procedures

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee  
Ofc: 517-284-7003  
Cell: 517-930-3472

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**From:** Doll, Ryan (DTMB)  
**Sent:** Wednesday, February 03, 2016 4:40 PM  
**To:** Brownlee, Jeff (DTMB)  
**Cc:** McNeely, Jacques (DTMB)  
**Subject:** RE: Flint Emergency Purchasing Procedures

Thanks Jeff. On an unrelated note, I am hoping that you can help me confirm when the winner of the consolidated healthcare services contract for MDOC will be announced? As there are budget implications associated with the FY17 Executive Budget Recommendation release on Wednesday, it would be very much ideal if the announcement was made in advance of the budget presentation.

Thanks,  
Ryan

**Ryan Doll | Director**  
Division of Public Protection  
State Budget Office  
(517) 241-8685  
[michigan.gov/budget](http://michigan.gov/budget)



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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, February 03, 2016 11:39 AM  
**To:** Harkins, Chris (DTMB) <[HarkinsC1@michigan.gov](mailto:HarkinsC1@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Bankowski, Jeffrey S. (DTMB) <[BankowskiJ@michigan.gov](mailto:BankowskiJ@michigan.gov)>; Burger, Penelope (MSP) <[BurgerP@michigan.gov](mailto:BurgerP@michigan.gov)>; Irwin, Sherri (MSP) <[irwinS@michigan.gov](mailto:irwinS@michigan.gov)>; Shoemaker, Lisa (DTMB) <[shoemakerl@michigan.gov](mailto:shoemakerl@michigan.gov)>; Doll, Ryan (DTMB) <[DollR@michigan.gov](mailto:DollR@michigan.gov)>  
**Subject:** FW: Flint Emergency Purchasing Procedures

Here is a copy of the communication that went out yesterday----the letter I brought up in the 11:00 meeting.

Thanks,  
Jeff

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 2, 2016 2:34 PM  
**To:** Arbulu, Agustin (MDCR) <[ArbuluA@michigan.gov](mailto:ArbuluA@michigan.gov)>; Arwood, Steve (LARA) <[ArwoodS@michigan.gov](mailto:ArwoodS@michigan.gov)>; Clover Adams, Jamie (MDARD) <[CloveradamsJ@michigan.gov](mailto:CloveradamsJ@michigan.gov)>; Creagh, Keith (DEQ) <[creaghk@michigan.gov](mailto:creaghk@michigan.gov)>; Etue, Kriste (MSP) <[EtueK@michigan.gov](mailto:EtueK@michigan.gov)>; Johnson, Ruth (MDOS) <[JohnsonR43@michigan.gov](mailto:JohnsonR43@michigan.gov)>; Khouri, Nick (TREASURY) <[KhouriN@michigan.gov](mailto:KhouriN@michigan.gov)>; Lyon, Nick (DHHS) <[LyonN2@michigan.gov](mailto:LyonN2@michigan.gov)>; Maj. Gen. Gregory Vadnais DMVA <[gregory.l.vadnais.mil@mail.mil](mailto:gregory.l.vadnais.mil@mail.mil)>; McPharlin, Pat (DIFS) <[McPharlinP@michigan.gov](mailto:McPharlinP@michigan.gov)>; Moritz, William (DNR) <[MoritzW@michigan.gov](mailto:MoritzW@michigan.gov)>; Roberts, John (DTMB) <[RobertsJ9@michigan.gov](mailto:RobertsJ9@michigan.gov)>; Schuette, Bill (AG)

<SchuetteB@michigan.gov>; Steudle, Kirk (MDOT) <SteudleK@michigan.gov>; Washington, Heidi E. (MDOC) <WashingtonM6@michigan.gov>; Whiston, Brian (MDE) <WhistonB@michigan.gov>; Winters, Jan (MCSC) <WintersJ@michigan.gov>; Zimmer, Mike (LARA) <zimmerm@michigan.gov>; Allan, Jon (DEQ) <AllanJ@michigan.gov>; Barnes, Jeff (DMVA) <barnesj7@michigan.gov>; Bowen, Scott (MSL) <bowens1@michigan.gov>; Brader, Valerie (LARA) <braderv@michigan.gov>; Comai, Stephanie (TIA) <ComaiS1@michigan.gov>; Deloney, Andrew (LARA) <DeloneyA@michigan.gov>; Elsenheimer, Kevin (MSHDA) <ElsenheimerK@michigan.gov>; Goei, Bing (LARA) <GoeiB@michigan.gov>; Hawks, Orlene (DTMB) <HawksO@michigan.gov>; Kalm, Rick (MGCB) <KalmR@michigan.gov>; Ringler, Doug (OAG) <dringler@audgen.michigan.gov>; Waalkes, Marie (DTMB) <WaalkesM1@michigan.gov>

**Subject:** Flint Emergency Purchasing Procedures

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee  
Ofc: 517-284-7003  
Cell: 517-930-3472

---

**From:** Buhs, Caleb (DTMB)  
**Sent:** Wednesday, February 03, 2016 6:31 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Re: Flint Emergency Purchasing Procedures

It turned out that he did have it.

Caleb Buhs

On Feb 3, 2016, at 3:33 PM, Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)> wrote:

This was sent yesterday. Nick was on the distribution list; not sure what happened.

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 2, 2016 2:34 PM  
**To:** Arbulu, Agustin (MDCR) <[ArbuluA@michigan.gov](mailto:ArbuluA@michigan.gov)>; Arwood, Steve (LARA) <[ArwoodS@michigan.gov](mailto:ArwoodS@michigan.gov)>; Clover Adams, Jamie (MDARD) <[CloveradamsJ@michigan.gov](mailto:CloveradamsJ@michigan.gov)>; Creagh, Keith (DEQ) <[creaghk@michigan.gov](mailto:creaghk@michigan.gov)>; Etue, Kriste (MSP) <[EtueK@michigan.gov](mailto:EtueK@michigan.gov)>; Johnson, Ruth (MDOS) <[JohnsonR43@michigan.gov](mailto:JohnsonR43@michigan.gov)>; Khouri, Nick (TREASURY) <[KhouriN@michigan.gov](mailto:KhouriN@michigan.gov)>; Lyon, Nick (DHHS) <[LyonN2@michigan.gov](mailto:LyonN2@michigan.gov)>; Maj. Gen. Gregory Vadnais DMVA <[gregory.j.vadnais.mil@mail.mil](mailto:gregory.j.vadnais.mil@mail.mil)>; McPharlin, Pat (DIFS) <[McPharlinP@michigan.gov](mailto:McPharlinP@michigan.gov)>; Moritz, William (DNR) <[MoritzW@michigan.gov](mailto:MoritzW@michigan.gov)>; Roberts, John (DTMB) <[RobertsJ9@michigan.gov](mailto:RobertsJ9@michigan.gov)>; Schuette, Bill (AG) <[SchuetteB@michigan.gov](mailto:SchuetteB@michigan.gov)>; Steudle, Kirk (MDOT) <[SteudleK@michigan.gov](mailto:SteudleK@michigan.gov)>; Washington, Heidi E. (MDOC) <[WashingtonM6@michigan.gov](mailto:WashingtonM6@michigan.gov)>; Whiston, Brian (MDE) <[WhistonB@michigan.gov](mailto:WhistonB@michigan.gov)>; Winters, Jan (MCSC) <[WintersJ@michigan.gov](mailto:WintersJ@michigan.gov)>; Zimmer, Mike (LARA) <[zimmerm@michigan.gov](mailto:zimmerm@michigan.gov)>; Allan, Jon (DEQ) <[Allanj@michigan.gov](mailto:Allanj@michigan.gov)>; Barnes, Jeff (DMVA) <[barnesj7@michigan.gov](mailto:barnesj7@michigan.gov)>; Bowen, Scott (MSL) <[bowens1@michigan.gov](mailto:bowens1@michigan.gov)>; Brader, Valerie (LARA) <[braderv@michigan.gov](mailto:braderv@michigan.gov)>; Comai, Stephanie (TIA) <[ComaiS1@michigan.gov](mailto:ComaiS1@michigan.gov)>; Deloney, Andrew (LARA) <[DeloneyA@michigan.gov](mailto:DeloneyA@michigan.gov)>; Elsenheimer, Kevin (MSHDA) <[ElsenheimerK@michigan.gov](mailto:ElsenheimerK@michigan.gov)>; Goei, Bing (LARA) <[GoeiB@michigan.gov](mailto:GoeiB@michigan.gov)>; Hawks, Orlene (DTMB) <[HawksO@michigan.gov](mailto:HawksO@michigan.gov)>; Kalm, Rick (MGCB) <[KalmR@michigan.gov](mailto:KalmR@michigan.gov)>; Ringler, Doug (OAG) <[dringler@audgen.michigan.gov](mailto:dringler@audgen.michigan.gov)>; Waalkes, Marie (DTMB) <[WaalkesM1@michigan.gov](mailto:WaalkesM1@michigan.gov)>  
**Subject:** Flint Emergency Purchasing Procedures

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee  
Ofc: 517-284-7003  
Cell: 517-930-3472

<Flint Emergency Purchasing Procedures.pdf>

---

**From:** Bankowski, Jeffrey S. (DTMB)  
**Sent:** Wednesday, February 03, 2016 8:13 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Re: Flint Emergency Purchasing Procedures

Jeff - in this letter it references another attachment for each SEOC contact by department - can you send me that?

Sent from my iPhone

On Feb 3, 2016, at 11:39 AM, Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)> wrote:

Here is a copy of the communication that went out yesterday—the letter I brought up in the 11:00 meeting.

Thanks,  
Jeff

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 2, 2016 2:34 PM  
**To:** Arbulu, Agustin (MDCR) <[ArbuluA@michigan.gov](mailto:ArbuluA@michigan.gov)>; Arwood, Steve (LARA) <[Arwood5@michigan.gov](mailto:Arwood5@michigan.gov)>; Clover Adams, Jamie (MDARD) <[CloveradamsJ@michigan.gov](mailto:CloveradamsJ@michigan.gov)>; Creagh, Keith (DEQ) <[creaghk@michigan.gov](mailto:creaghk@michigan.gov)>; Etue, Kriste (MSP) <[EtueK@michigan.gov](mailto:EtueK@michigan.gov)>; Johnson, Ruth (MDOS) <[JohnsonR43@michigan.gov](mailto:JohnsonR43@michigan.gov)>; Khouri, Nick (TREASURY) <[KhouriN@michigan.gov](mailto:KhouriN@michigan.gov)>; Lyon, Nick (DHHS) <[i.yonN2@michigan.gov](mailto:i.yonN2@michigan.gov)>; Maj. Gen. Gregory Vадnais DMVA <[gregory.i.vadnais.mil@mail.mil](mailto:gregory.i.vadnais.mil@mail.mil)>; McPharlin, Pat (DIFS) <[McPharlinP@michigan.gov](mailto:McPharlinP@michigan.gov)>; Moritz, William (DNR) <[MoritzW@michigan.gov](mailto:MoritzW@michigan.gov)>; Roberts, John (DTMB) <[RobertsJ9@michigan.gov](mailto:RobertsJ9@michigan.gov)>; Schuette, Bill (AG) <[SchuetteB@michigan.gov](mailto:SchuetteB@michigan.gov)>; Steudle, Kirk (MDOT) <[SteudleK@michigan.gov](mailto:SteudleK@michigan.gov)>; Washington, Heidi E. (MDOC) <[WashingtonM6@michigan.gov](mailto:WashingtonM6@michigan.gov)>; Whiston, Brian (MDE) <[WhistonB@michigan.gov](mailto:WhistonB@michigan.gov)>; Winters, Jan (MCSC) <[WintersJ@michigan.gov](mailto:WintersJ@michigan.gov)>; Zimmer, Mike (LARA) <[zimmerm@michigan.gov](mailto:zimmerm@michigan.gov)>; Allan, Jon (DEQ) <[AllanJ@michigan.gov](mailto:AllanJ@michigan.gov)>; Barnes, Jeff (DMVA) <[barnesj7@michigan.gov](mailto:barnesj7@michigan.gov)>; Bowen, Scott (MSL) <[bowens1@michigan.gov](mailto:bowens1@michigan.gov)>; Brader, Valerie (LARA) <[braderv@michigan.gov](mailto:braderv@michigan.gov)>; Comai, Stephanie (TIA) <[ComaiS1@michigan.gov](mailto:ComaiS1@michigan.gov)>; Deloney, Andrew (LARA) <[DeloneyA@michigan.gov](mailto:DeloneyA@michigan.gov)>; Elsenheimer, Kevin (MSHDA) <[ElsenheimerK@michigan.gov](mailto:ElsenheimerK@michigan.gov)>; Goei, Bing (LARA) <[GoeiB@michigan.gov](mailto:GoeiB@michigan.gov)>; Hawks, Orlene (DTMB) <[HawksO@michigan.gov](mailto:HawksO@michigan.gov)>; Kalm, Rick (MGCB) <[KalmR@michigan.gov](mailto:KalmR@michigan.gov)>; Ringler, Doug (OAG) <[dringler@audgen.michigan.gov](mailto:dringler@audgen.michigan.gov)>; Waalkes, Marie (DTMB) <[WaalkesM1@michigan.gov](mailto:WaalkesM1@michigan.gov)>  
**Subject:** Flint Emergency Purchasing Procedures

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee  
Ofc: 517-284-7003  
Cell: 517-930-3472

<Flint Emergency Purchasing Procedures.pdf>

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Thursday, February 04, 2016 8:43 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Emergency Response for Flint Michigan Water Contamination

Hi Jeff,

Here is a draft of a response letter for Flint submissions. I told Brom we would get it over to him this morning but wanted to see if you have any suggestions or changes first.

*Greetings,*

*Thank you for your recent submission to the State of Michigan's purchasing department. All vendor submissions to assist the Flint emergency will be reviewed. You **may** be contacted by state representatives for additional information regarding your product or service. **Not all vendors will be contacted** to provide additional information.*

*We encourage you to register your business on the state's bid posting website [www.Buy4Michigan.com](http://www.Buy4Michigan.com). This is where the state will post contract opportunities \$10,000 and above. The state is required to competitively bid the purchase of most goods and services.*

*You may also register your business on the Contract and Payment Express which is the state's electronic fund transfer system. In the event that you are awarded a contract or the state would like to make a purchase from your company, registration on this website will ensure you are able to be paid. Visit [www.michigan.gov/cpexpress](http://www.michigan.gov/cpexpress).*

*For more information on the state's contracting process, please visit the Contract Connect website at [www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect). The Contract Connect website will provide you with training tutorials, purchasing laws and policies, and much more.*

*Thank you again for your submission and readiness to assist the residents of Flint.*

*Sincerely,*

*Department of Technology, Management and Budget – Procurement  
[DTMB-micontractconnect@michigan.gov](mailto:DTMB-micontractconnect@michigan.gov)*

Thanks,

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, February 03, 2016 3:26 PM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Cc:** Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Subject:** Fwd: Emergency Response for Flint Michigan Water Contamination

Jenni,  
Can you do this? Please confirm and provide a timeline, pls.

Thank you,  
Jeff

Sent from my iPhone

Begin forwarded message:

**From:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Date:** February 3, 2016 at 3:24:31 PM EST  
**To:** "Riehle, Jenni (DTMB)" <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Cc:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Fwd: Emergency Response for Flint Michigan Water Contamination

Can we generate a confirmation email?

Thanks,

Brom Stibitz

Begin forwarded message:

**From:** "Sachs, Tori (GOV)" <[SachsT@michigan.gov](mailto:SachsT@michigan.gov)>  
**Date:** February 3, 2016 at 3:22:42 PM EST  
**To:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Cc:** "Stoken, Laura (GOV)" <[StokenL@michigan.gov](mailto:StokenL@michigan.gov)>  
**Subject:** Fwd: Emergency Response for Flint Michigan Water Contamination

Hi Brom,

Any way we can get this to happen? See below.

Thanks  
Tori

Begin forwarded message:

**From:** "Stoken, Laura (GOV)" <[StokenL@michigan.gov](mailto:StokenL@michigan.gov)>  
**Date:** February 3, 2016 at 3:20:44 PM EST  
**To:** "Sachs, Tori (GOV)" <[SachsT@michigan.gov](mailto:SachsT@michigan.gov)>  
**Subject:** FW: Emergency Response for Flint Michigan Water Contamination

Is there any way to have DTMB send a confirmation receipt to folks that submit their companies information online? We are getting many people wondering if their submission went through.

Thank you,

Laura



**From:** Christopher Persad [<mailto:cjpersad@aditechnologies.com>]  
**Sent:** Wednesday, February 03, 2016 12:49 PM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>; Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Subject:** Emergency Response for Flint Michigan Water Contamination

Good afternoon,

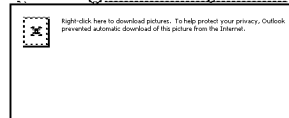
I just finished completing and submitting our emergency vendor aid sheet, and I never received any sort of confirmation that it was sent. Would it be possible for you to direct me to the right people, or place to confirm that this did go through. If it did not then I will need to resend it, that's okay I just don't know if it went through. Please see attachment to view completed document.

Thank You,  
B/R

--

**CJ Persad**

*ADI Technologies, Inc.  
1487 Chain Bridge Road, Suite 204  
McLean, VA 22101 USA  
(703) 734-9626 ext 221  
FAX (703) 448-8591  
[cjpersad@aditechnologies.com](mailto:cjpersad@aditechnologies.com)*



*[www.aditechnologies.com](http://www.aditechnologies.com)*

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, February 04, 2016 9:28 AM  
**To:** Brownlee, Jeff (DTMB)  
**Cc:** Calahan, Heather (DTMB)  
**Subject:** RE: Flint Emergency Purchasing Procedures

No. Heather asked yesterday as well. I emailed Chris Christensen yesterday, and he's working on it. It should be distributed with a caveat that the list continues to evolve. Especially as staff have back ups occasionally, since they are working 12 hours shifts, seven days a week.

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 4, 2016 12:29 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** Re: Flint Emergency Purchasing Procedures

Do you have this? I forgot to get it before I sent this! Oops. Thx.

Sent from my iPhone

On Feb 3, 2016, at 8:13 PM, Bankowski, Jeffrey S. (DTMB) <[BankowskiJ@michigan.gov](mailto:BankowskiJ@michigan.gov)> wrote:

Jeff - in this letter it references another attachment for each SEOC contact by department - can you send me that?

Sent from my iPhone

On Feb 3, 2016, at 11:39 AM, Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)> wrote:

Here is a copy of the communication that went out yesterday---the letter I brought up in the 11:00 meeting.

Thanks,  
Jeff

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 2, 2016 2:34 PM  
**To:** Arbulu, Agustin (MDCR) <[ArbuluA@michigan.gov](mailto:ArbuluA@michigan.gov)>; Arwood, Steve (LARA) <[ArwoodS@michigan.gov](mailto:ArwoodS@michigan.gov)>; Clover Adams, Jamie (MDARD) <[CloveradamsJ@michigan.gov](mailto:CloveradamsJ@michigan.gov)>; Creagh, Keith (DEQ) <[creaghk@michigan.gov](mailto:creaghk@michigan.gov)>; Etue, Kriste (MSP) <[EtueK@michigan.gov](mailto:EtueK@michigan.gov)>; Johnson, Ruth (MDOS) <[JohnsonR43@michigan.gov](mailto:JohnsonR43@michigan.gov)>; Khouri, Nick (TREASURY) <[KhouriN@michigan.gov](mailto:KhouriN@michigan.gov)>; Lyon, Nick (DHHS) <[LyonN2@michigan.gov](mailto:LyonN2@michigan.gov)>; Maj. Gen. Gregory Vadnais DMVA <[gregory.j.vadnais.mil@mail.mil](mailto:gregory.j.vadnais.mil@mail.mil)>; McPharlin, Pat (DIFS) <[McPharlinP@michigan.gov](mailto:McPharlinP@michigan.gov)>; Moritz, William (DNR) <[MoritzW@michigan.gov](mailto:MoritzW@michigan.gov)>; Roberts, John (DTMB) <[RobertsJ9@michigan.gov](mailto:RobertsJ9@michigan.gov)>; Schuette, Bill (AG) <[SchuetteB@michigan.gov](mailto:SchuetteB@michigan.gov)>; Steudle, Kirk (MDOT) <[SteudleK@michigan.gov](mailto:SteudleK@michigan.gov)>; Washington, Heidi E. (MDOC) <[WashingtonM6@michigan.gov](mailto:WashingtonM6@michigan.gov)>; Whiston, Brian (MDE) <[WhistonB@michigan.gov](mailto:WhistonB@michigan.gov)>;

Winters, Jan (MCSC) <[WintersJ@michigan.gov](mailto:WintersJ@michigan.gov)>; Zimmer, Mike (LARA) <[zimmerm@michigan.gov](mailto:zimmerm@michigan.gov)>; Allan, Jon (DEQ) <[AllanJ@michigan.gov](mailto:AllanJ@michigan.gov)>; Barnes, Jeff (DMVA) <[barnesj7@michigan.gov](mailto:barnesj7@michigan.gov)>; Bowen, Scott (MSL) <[bowens1@michigan.gov](mailto:bowens1@michigan.gov)>; Brader, Valerie (LARA) <[braderv@michigan.gov](mailto:braderv@michigan.gov)>; Comai, Stephanie (TIA) <[ComaiS1@michigan.gov](mailto:ComaiS1@michigan.gov)>; Deloney, Andrew (LARA) <[DeloneyA@michigan.gov](mailto:DeloneyA@michigan.gov)>; Elsenheimer, Kevin (MSHDA) <[ElsenheimerK@michigan.gov](mailto:ElsenheimerK@michigan.gov)>; Goei, Bing (LARA) <[GoeiB@michigan.gov](mailto:GoeiB@michigan.gov)>; Hawks, Orlene (DTMB) <[HawksO@michigan.gov](mailto:HawksO@michigan.gov)>; Kalm, Rick (MGCB) <[KalmR@michigan.gov](mailto:KalmR@michigan.gov)>; Ringler, Doug (OAG) <[dringler@audgen.michigan.gov](mailto:dringler@audgen.michigan.gov)>; Waalkes, Marie (DTMB) <[WaalkesM1@michigan.gov](mailto:WaalkesM1@michigan.gov)>

**Subject:** Flint Emergency Purchasing Procedures

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee

Ofc: 517-284-7003

Cell: 517-930-3472

<Flint Emergency Purchasing Procedures.pdf>

---

**From:** Trakul, Pamela (DTMB)  
**Sent:** Friday, February 05, 2016 11:02 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: FOIA Request From the Detroit Free Press Re: Flint Water

I let Brom and Caleb know that you forwarded the appointment to other individuals just to remove the element of surprise. If you have not heard from Brom and Caleb, assume it is okay.

Pamela A. Trakul, Senior Executive Management Assistant  
to DTMB Chief Deputy Director and COO, Brom Stibitz, and CFO, Phil Jeffery  
Lewis Cass Building, Second Floor  
320 S. Walnut Street  
P.O. Box 30026  
Lansing, Michigan 48909  
Phone: 517-373-7506

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Friday, February 5, 2016 10:50 AM  
**To:** Trakul, Pamela (DTMB) <TrakulP@michigan.gov>  
**Subject:** RE: FOIA Request From the Detroit Free Press Re: Flint Water

Can I bring folks to this?

-----Original Appointment-----

**From:** Trakul, Pamela (DTMB)  
**Sent:** Friday, February 5, 2016 10:08 AM  
**To:** Stibitz, Brom (DTMB); Buhs, Caleb (DTMB); Buckberry, Gary (DTMB); Christensen, Chris (DTMB); Turnquist, Michael (DTMB); Brownlee, Jeff (DTMB)  
**Cc:** Knapp, Kathy (DTMB); Gonzalez, Tonyia (DTMB); Fortino, Diane (DTMB)  
**Subject:** FOIA Request From the Detroit Free Press Re: Flint Water  
**When:** Friday, February 5, 2016 3:30 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** DTMB Cass Innovation Room

**See FOIA request below.**  
**Pam 2/5/2016**

**From:** Dolan, Matthew [<mailto:msdolan@freepress.com>]  
**Sent:** Thursday, February 04, 2016 4:49 PM  
**To:** DTMB <[dtmb@michigan.gov](mailto:dtmb@michigan.gov)>  
**Subject:** FOIA request from the Detroit Free Press, RE: Flint water

### **Request for Public Record**

## To: FOIA Coordinators via email

I am a person as defined under Michigan FOIA. Please accept this correspondence as a request pursuant to the Michigan Freedom of Information Act (FOIA) Michigan Compiled Laws §15.231 to §15.246 *et seq.*, the Michigan Constitution and common law, and the U.S. Constitution, for certain public documents hereinafter specified.

**Date of Request:** 2/4/16      **Time:** 4:40 p.m. via email

**Person Requesting Record:** Matthew Dolan      Phone: 313-223-4743

**Mailing address:** Detroit Free Press

160 W. Fort Street

Detroit, MI 48226

**Email Address:** [msdolan@freepress.com](mailto:msdolan@freepress.com)      **Fax:** n/a

### **Delivery Specifications:**

**Please select the quickest form to be able to view the documents:**

☐ **Email:** to requestor at the email address above if possible, and if not please mail to the address above.

☐ **In-office Inspection:** Please contact me with an acceptable contact, time, and date when I may appear for inspection and possible scanning of documents.

☐ **Pick- up:** Please contact me with an acceptable contact, time, and date when I may pick up the documents.

**Auditor or Attorney:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Media Specification:** Paper Copies or Email attachment less than 20 MB, CD-ROM or DVD, unless certain records are not available in computer format, in which case response by fax or in-person viewing is preferred

**Records requested:** The records and documents I am requesting are all those relating to:

Copies of the documents, including but not limited to emails already requested by and provided to Progress Michigan or those associated with the organization related to any and all discussion of Flint's water supply, including but not limited to contaminant such as lead and copper in the water as well as any and all discussion of Legionnaire's disease in Genesee County, Mich

For the purposes of this request, the term "**you**" or "**your**" refers to public body generating or maintaining the public records requested in this request, and to which this request is directed, whether that be an agency, municipality, office, county, or any other entity subject to disclosure under this act; the term "**records**" refers to all documents, regardless of physical form (including without limitation papers, reports, notes of telephone conversations, telephone call messages, studies, proposals, indices, letters, messages, faxes, minutes, logs, journal entries, calendars, and computer-based or computer-generated materials including e-mail, or any other documentation of any kind of any and all kind) of or belonging to any department, agency, service area, board or other subdivision of the public body. "Records" shall include drafts of records to the extent permitted by law; The term "**email**" includes any electronic message and any attachment to any such message, and specifically includes emails sent or received by an officer, agent, or employee using an email address other than that person's official government issued email address if sent or received while on duty, using a government computer, in a government building, sent or received using a government contact list, or other using any other government resource.

Michigan law requires you to respond to this request not more than five (5) days from your receipt of this request, but you are asked to expedite this request if possible. If this request is sent by fax or email, the time to comply begins the day after the faxed request is sent to you. If your agency does not maintain these public records, please let my designated auditor know who does, and include the proper custodian's name and address. If this fax request does not go directly to the office of the FOIA coordinator, you must deliver it there immediately. If you deny any part of

this request, please indicate the name and position of the person too who an appeal should be directed prior to instituting suit, so that needless litigation in which costs, damages, and attorney fee may be taxed against you might be avoided.

Take notice of the penalties and consequences for failure to comply with this request: Willful violation of FOIA by refusing to disclose or delaying in disclosing or providing copies of a public record, may result in the court awarding in addition to any actual or compensatory damages, award punitive damages in the amount of \$500 to the person seeking the right to inspect or receive a copy of a public record. Reasonable attorneys' fees, costs, and disbursements" will be awarded to any person who prevails in an action to compel disclosure under MCLA § 15.240. If the requesting person only prevails in part, "the court may, in its discretion, award all or an appropriate portion of reasonable attorneys' fees, costs, and disbursements.

Because of the civic educational purpose of this request, I request a fee waiver and ask that you determine that a waiver or reduction of the fee is in the public interest because furnishing copies of the public record can be considered as primarily benefiting the general public." MCLA § 15.234(1)

I agree to pay any reasonable search, copying, and postage fees of not more than \$2.00. If the cost would be greater than this amount, Please immediately contact me by telephone or email if you anticipate that the costs will exceed this amount, so as not to cause delay in the prompt disclosure of the records requested. I may appear in person to inspect the documents on scan them using my portable equipment. Please provide a receipt indicating the charges for each document. The Michigan FOIA law provides that, "A fee shall not be charged for the cost of search, examination, review, and the deletion and separation of exempt from nonexempt information as provided in section 14 unless failure to charge a fee would result in unreasonably high costs to the public body because of the nature of the request in the particular instance, and the public body specifically identifies the nature of these unreasonably high costs. MCLA § 15.234(3).

If the documents I have requested are not subject to disclosure in their entirety, I request that you release all nonexempt portions of the documents that may be segregated and all parts of the documents that can be rendered disclosable by redaction without fee. If you determine that any of the requested documents fall within a statutory exemption, I request that you exercise your discretion to disclose those materials because of the overriding public concern about the improper use of government email systems and resources to further political agendas. As to any portion of the documents that you withhold, please state with specificity the legal and factual basis for withholding such portion. To the extent that you are unable to produce copies of or otherwise make available all records requested within the time frame provided, please notify my auditor in writing and provide me with those records that are available within the prescribed time frame and the remainder of the records on a "rolling" basis as they become available for production.

I appreciate your anticipated prompt cooperation and will expect your response within 5 days, as required by the act. If you need further explanation of the details or the nature or scope of this request, please feel free to call me or my designated auditor or attorney specified above using the contact information provided.

Matthew Dolan  
Detroit Free Press  
313-223-4743 (work)  
248-227-0497 (cell)  
[msdolan@freepress.com](mailto:msdolan@freepress.com)  
@matthewsdolan

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**From:** Trakul, Pamela (DTMB)  
**Sent:** Friday, February 05, 2016 12:58 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: FOIA Request From the Detroit Free Press Re: Flint Water

No worries. Thanks, Jeff!

Pamela A. Trakul, Senior Executive Management Assistant  
to DTMB Chief Deputy Director and COO, Brom Stibitz, and CFO, Phil Jeffery  
Lewis Cass Building, Second Floor  
320 S. Walnut Street  
P.O. Box 30026  
Lansing, Michigan 48909  
Phone: 517-373-7506

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Friday, February 5, 2016 12:50 PM  
**To:** Trakul, Pamela (DTMB) <TrakulP@michigan.gov>  
**Subject:** Re: FOIA Request From the Detroit Free Press Re: Flint Water

Sorry about that. I hit forward on my phone thinking I was forwarding info, not an appt. In fact, the primary person I sent it to doesn't even work on Fridays.

Sent from my iPhone

On Feb 5, 2016, at 11:02 AM, Trakul, Pamela (DTMB) <[TrakulP@michigan.gov](mailto:TrakulP@michigan.gov)> wrote:

I let Brom and Caleb know that you forwarded the appointment to other individuals just to remove the element of surprise. If you have not heard from Brom and Caleb, assume it is okay.

Pamela A. Trakul, Senior Executive Management Assistant  
to DTMB Chief Deputy Director and COO, Brom Stibitz, and CFO, Phil Jeffery  
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P.O. Box 30026  
Lansing, Michigan 48909  
Phone: 517-373-7506

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Friday, February 5, 2016 10:50 AM  
**To:** Trakul, Pamela (DTMB) <[TrakulP@michigan.gov](mailto:TrakulP@michigan.gov)>  
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**Sent:** Friday, February 5, 2016 10:08 AM

**To:** Stibitz, Brom (DTMB); Buhs, Caleb (DTMB); Buckberry, Gary (DTMB); Christensen, Chris (DTMB); Turnquist, Michael (DTMB); Brownlee, Jeff (DTMB)

**Cc:** Knapp, Kathy (DTMB); Gonzalez, Tonyia (DTMB); Fortino, Diane (DTMB)

**Subject:** FOIA Request From the Detroit Free Press Re: Flint Water

**When:** Friday, February 5, 2016 3:30 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:** DTMB Cass Innovation Room

**See FOIA request below.**

**Pam 2/5/2016**

**From:** Dolan, Matthew [mailto:msdolan@freepress.com]

**Sent:** Thursday, February 04, 2016 4:49 PM

**To:** DTMB <dtmb@michigan.gov>

**Subject:** FOIA request from the Detroit Free Press, RE: Flint water

### **Request for Public Record**

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**Person Requesting Record:** Matthew Dolan      Phone: 313-223-4743

**Mailing address:** Detroit Free Press

160 W. Fort Street

Detroit, MI 48226

**Email Address:** msdolan@freepress.com      **Fax:** n/a

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**Please select the quickest form to be able to view the documents:**

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**Auditor or Attorney:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

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For the purposes of this request, the term "**you**" or "**your**" refers to public body generating or maintaining the public records requested in this request, and to which this request is directed, whether that be an agency, municipality, office, county, or any other entity subject to disclosure under this act; the term "**records**" refers to all documents, regardless of physical form (including without limitation papers, reports, notes of telephone conversations, telephone call messages, studies, proposals, indices, letters, messages, faxes, minutes, logs, journal entries, calendars, and computer-based or computer-generated materials including e-mail, or any other documentation of any kind of any and all kind) of or belonging to any department, agency, service area, board or other subdivision of the public body. "Records" shall include drafts of records to the extent permitted by law; The term "**email**" includes any electronic message and any attachment to any such message, and specifically includes emails sent or received by an officer, agent, or employee using an email address other than that person's official government issued email address if sent or received while on duty, using a government computer, in a government building, sent or received using a government contact list, or other using any other government resource.

Michigan law requires you to respond to this request not more than five (5) days from your receipt of this request, but you are asked to expedite this request if possible. If this request is sent by fax or email, the time to comply begins the day after the faxed request is sent to you. If your agency does not maintain these public records, please let my designated auditor know who does, and include the proper custodian's name and address. If this fax request does not go directly to the office of the FOIA coordinator, you must deliver it there immediately. If you deny any part of this request, please indicate the name and position of the person too who an appeal should be directed prior to instituting suit, so that needless litigation in which costs, damages, and attorney fee may be taxed against you might be avoided.

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I appreciate your anticipated prompt cooperation and will expect your response within 5 days, as required by the act. If you need further explanation of the details or the nature or scope of this request, please feel free to call me or my designated auditor or attorney specified above using the contact information provided.

Matthew Dolan  
Detroit Free Press  
313-223-4743 (work)  
248-227-0497 (cell)  
[msdolan@freepress.com](mailto:msdolan@freepress.com)  
@matthewsdolan

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**From:** Droste, LeAnn (LARA)  
**Sent:** Monday, February 08, 2016 8:19 AM  
**To:** Brownlee, Jeff (DTMB)  
**Cc:** Pohl, Allan (LARA); Maynard, Sharon (DTMB)  
**Subject:** Flint Declaration of Emergency Contract  
**Attachments:** Plumbing Standard Contract Terms.pdf; Exhibit A - Plumbing Services.pdf; Plumbing Exhibit C - Pricing.pdf

**Importance:** High

Hi Jeff –

LARA has been in discussions with the Plumbers and Pipefitters, UA Local 370, to obtain plumbers for replacement of fixtures in Flint schools and other institutions as identified in P.A. 3 of 2016. I have drafted the attached documents for the contract and have sent to Local 370 for review. We are looking to begin replacement of fixtures next week; therefore, this email is to notify you of this LARA contract.

A letter to the Ad Board will be forthcoming as well explaining the process used to obtain the services.

Please let me know if you have any questions.

Thank you!

LeAnn Droste  
Acting Director  
Finance and Administrative Services  
Department of Licensing & Regulatory Affairs  
517-373-3847  
517-373-2927 fax

LEGAL NOTICE: This e-mail is for the exclusive use of the intended recipient(s), and may contain privileged and confidential information. If you are not an intended recipient, please notify the sender, delete the e-mail from your computer and do not copy or disclose it to anyone else. Your receipt of this message is not intended to waive any applicable privilege. Neither this e-mail nor any attachment(s) establish an attorney-client relationship, constitute an electronic signature or provide consent to contract electronically, unless expressly so stated by the sender in the body of this e-mail or an attachment.



# STATE OF MICHIGAN

## STANDARD CONTRACT TERMS

This STANDARD CONTRACT ("**Contract**") is agreed to between the State of Michigan (the "**State**") and [Insert Company Name] ("**Contractor**"), a Michigan LLC. This Contract is effective on February 8, 2016 ("**Effective Date**"), and unless terminated, expires on March 31, 2016.

This Contract may be renewed additional months as needed to complete the work outlined in Exhibit A. Renewal must be by written agreement of the parties.

The parties agree as follows:

1. **Duties of Contractor.** Contractor must perform the services and provide the deliverables described in **Exhibit A – Statement of Work** (the "**Contract Activities**"). An obligation to provide delivery of any commodity is considered a service and is a Contract Activity.

Contractor must furnish all labor, equipment, materials, and supplies necessary for the performance of the Contract Activities, and meet operational standards, unless otherwise specified in Exhibit A.

Contractor must: (a) perform the Contract Activities in a timely, professional, safe, and workmanlike manner consistent with standards in the trade, profession, or industry; (b) meet or exceed the performance and operational standards, and specifications of the Contract; (c) provide all Contract Activities in good quality, with no material defects; (d) not interfere with the State's operations; (e) obtain and maintain all necessary licenses, permits or other authorizations necessary for the performance of the Contract; (f) cooperate with the State, including the State's quality assurance personnel, and any third party to achieve the objectives of the Contract; (g) return to the State any State-furnished equipment or other resources in the same condition as when provided when no longer required for the Contract; (h) not make any media releases without prior written authorization from the State; (i) assign to the State any claims resulting from state or federal antitrust violations to the extent that those violations concern materials or services supplied by third parties toward fulfillment of the Contract; (j) comply with all State physical and IT security policies and standards which will be made available upon request; and (k) provide the State priority in performance of the Contract except as mandated by federal disaster response requirements. Any breach under this paragraph is considered a material breach.

Contractor must also be clearly identifiable while on State property by wearing identification issued by the State, and clearly identify themselves whenever making contact with the State.

2. **Notices.** All notices and other communications required or permitted under this Contract must be in writing and will be considered given and received: (a) when verified by written receipt if sent by courier; (b) when actually received if sent by mail without verification of receipt; or (c) when verified by automated receipt or electronic logs if sent by facsimile or email.

If to State:	If to Contractor:
LeAnn Droste 611 W. Ottawa Street Lansing, MI 48933 Drostel1@michigan.gov 517-373-3847	[Name] [Street Address] [City, State, Zip] [Email] [Phone]

3. **Contract Administrator.** The Contract Administrator for each party is the only person authorized to modify any terms of this Contract, and approve and execute any change under this Contract (each a "**Contract Administrator**");

State:	Contractor:
LeAnn Droste	[Name]
611 W. Ottawa Street	[Street Address]
Lansing, MI 48933	[City, State, Zip]
Drostel1@michigan.gov	[Email]
517-373-3847	[Phone]

4. **Program Manager.** The Program Manager for each party will monitor and coordinate the day-to-day activities of the Contract (each a "Program Manager"):

State:	Contractor:
Alesha Gensler	[Name]
611 W. Ottawa Street	[Street Address]
Lansing, MI 48933	[City, State, Zip]
GenslerA1@michigan.gov	[Email]
517-335-3104	[Phone]

5. **Performance Guarantee.** Contractor must at all times have financial resources sufficient, in the opinion of the State, to ensure performance of the Contract and must provide proof upon request. The State may require a performance bond (as specified in Exhibit A) if, in the opinion of the State, it will ensure performance of the Contract.
6. **Insurance Requirements.** Contractor must maintain the insurances identified below and is responsible for all deductibles. All required insurance must: (a) protect the State from claims that may arise out of, are alleged to arise out of, or result from Contractor's or a subcontractor's performance; (b) be primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State; and (c) be provided by a company with an A.M. Best rating of "A" or better, and a financial size of VII or better.

Required Limits	Additional Requirements
<b>Commercial General Liability Insurance</b>	
<u>Minimal Limits:</u> \$1,000,000 Each Occurrence Limit \$1,000,000 Personal & Advertising Injury Limit \$2,000,000 General Aggregate Limit \$2,000,000 Products/Completed Operations  <u>Deductible Maximum:</u> \$50,000 Each Occurrence	Contractor must have their policy endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds using endorsement CG 20 10 11 85, or both CG 2010 07 04 and CG 2037 07 0.  <del>[Read and delete: Only needed if the Contractor will deal with children, schools, or the cognitively impaired.]</del> Coverage must not have exclusions or limitations related to sexual abuse and molestation liability.
<b>Automobile Liability Insurance</b>	
<u>Minimal Limits:</u> \$1,000,000 Per Occurrence	Contractor must have their policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds; and (2) include Hired and Non-Owned Automobile coverage.
<b>Workers' Compensation Insurance</b>	

<u>Minimal Limits:</u> Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.
<b>Employers Liability Insurance</b>	
<u>Minimal Limits:</u> \$500,000 Each Accident \$500,000 Each Employee by Disease \$500,000 Aggregate Disease.	

If any of the required policies provide **claims-made** coverage, the Contractor must: (a) provide coverage with a retroactive date before the effective date of the contract or the beginning of Contract Activities; (b) maintain coverage and provide evidence of coverage for at least three (3) years after completion of the Contract Activities; and (c) if coverage is canceled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, Contractor must purchase extended reporting coverage for a minimum of three (3) years after completion of work.

Contractor must: (a) provide insurance certificates to the Contract Administrator, containing the agreement or purchase order number, at Contract formation and within 20 calendar days of the expiration date of the applicable policies; (b) require that subcontractors maintain the required insurances contained in this Section; (c) notify the Contract Administrator within 5 business days if any insurance is cancelled; and (d) waive all rights against the State for damages covered by insurance. Failure to maintain the required insurance does not limit this waiver.

This Section is not intended to and is not be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State).

**7. Reserved**

**8. Reserved**

**9. Independent Contractor.** Contractor is an independent contractor and assumes all rights, obligations and liabilities set forth in this Contract. Contractor, its employees, and agents will not be considered employees of the State. No partnership or joint venture relationship is created by virtue of this Contract. Contractor, and not the State, is responsible for the payment of wages, benefits and taxes of Contractor's employees and any subcontractors. Prior performance does not modify Contractor's status as an independent contractor.

**10. Subcontracting.** Contractor may not delegate any of its obligations under the Contract without the prior written approval of the State. Contractor must notify the State at least 90 calendar days before the proposed delegation, and provide the State any information it requests to determine whether the delegation is in its best interest. If approved, Contractor must: (a) be the sole point of contact regarding all contractual matters, including payment and charges for all Contract Activities; (b) make all payments to the subcontractor; and (c) incorporate the terms and conditions contained in this Contract in any subcontract with a subcontractor. Contractor remains responsible for the completion of the Contract Activities, compliance with the terms of this Contract, and the acts and omissions of the subcontractor. The State, in its sole discretion, may require the replacement of any subcontractor.

**11. Staffing.** The State's Contract Administrator may require Contractor to remove or reassign personnel by providing a notice to Contractor.

**12. Reserved**

**13. Assignment.** Contractor may not assign this Contract to any other party without the prior approval of the State. Upon notice to Contractor, the State, in its sole discretion, may assign in whole or in part, its rights or responsibilities under this Contract to any other party. If the State determines that a novation of the

Contract to a third party is necessary, Contractor will agree to the novation and provide all necessary documentation and signatures.

- 14. Change of Control.** Contractor will notify, at least 10 calendar days before the effective date, the State of a change in Contractor's organizational structure or ownership. For purposes of this Contract, a change in control means any of the following: (a) a sale of more than 50% of Contractor's stock; (b) a sale of substantially all of Contractor's assets; (c) a change in a majority of Contractor's board members; (d) consummation of a merger or consolidation of Contractor with any other entity; (e) a change in ownership through a transaction or series of transactions; (f) or the board (or the stockholders) approves a plan of complete liquidation. A change of control does not include any consolidation or merger effected exclusively to change the domicile of Contractor, or any transaction or series of transactions principally for bona fide equity financing purposes.

In the event of a change of control, Contractor must require the successor to assume this Contract and all of its obligations under this Contract.

- 15. Ordering.** Contractor is not authorized to begin performance until receipt of authorization as identified in Exhibit A.
- 16. Acceptance.** Contract Activities are subject to inspection and testing by the State. If the Contract Activities are not fully accepted by the State, the State will notify Contractor by the end of the State Review Period that either: (a) the Contract Activities are accepted, but noted deficiencies must be corrected; or (b) the Contract Activities are rejected. If the State finds material deficiencies, it may: (i) reject the Contract Activities without performing any further inspections; (ii) demand performance at no additional cost; or (iii) terminate this Contract in accordance with Section 23, Termination for Cause.

Contractor must cure, at no additional cost, the deficiency and deliver unequivocally acceptable Contract Activities to the State. If acceptance with deficiencies or rejection of the Contract Activities impacts the content or delivery of other non-completed Contract Activities, the parties' respective Program Managers must determine an agreed to number of days for re-submission that minimizes the overall impact to the Contract. However, nothing herein affects, alters, or relieves Contractor of its obligations to correct deficiencies in accordance with the time response standards set forth in this Contract.

If Contractor is unable or refuses to correct the deficiency within the time response standards set forth in this Contract, the State may cancel the order in whole or in part. The State, or a third party identified by the State, may perform the Contract Activities and recover the difference between the cost to cure and the Contract price plus an additional 10% administrative fee.

- 17. Reserved**

- 18. Reserved**

- 19. Warranty Period.** The warranty period, if applicable, for Contract Activities is a fixed period commencing on the date specified in Exhibit A. If the Contract Activities do not function as warranted during the warranty period the State may return such non-conforming Contract Activities to the Contractor for a full refund.

- 20. Terms of Payment.** Invoices must conform to the requirements communicated from time-to-time by the State. All undisputed amounts are payable within 45 days of the State's receipt. Contractor may only charge for Contract Activities performed as specified in Exhibit A. Invoices must include an itemized statement of all charges. The State is exempt from State sales tax for direct purchases and may be exempt from federal excise tax, if Services purchased under this Agreement are for the State's exclusive use. Notwithstanding the foregoing, all prices are inclusive of taxes, and Contractor is responsible for all sales, use and excise taxes, and any other similar taxes, duties and charges of any kind imposed by any federal, state, or local governmental entity on any amounts payable by the State under this Contract.

The State has the right to withhold payment of any disputed amounts until the parties agree as to the validity of the disputed amount. The State will notify Contractor of any dispute within a reasonable time. Payment by the State will not constitute a waiver of any rights as to Contractor's continuing obligations, including claims for deficiencies or substandard Contract Activities. Contractor's acceptance of final payment by the State constitutes a waiver of all claims by Contractor against the State for payment under

this Contract, other than those claims previously filed in writing on a timely basis and still disputed.

The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at <http://www.michigan.gov/cpexpress> to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment. Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract.

21. **Liquidated Damages.** Liquidated damages, if applicable, will be assessed as described in Exhibit A.
22. **Stop Work Order.** The State may suspend any or all activities under the Contract at any time. The State will provide Contractor a written stop work order detailing the suspension. Contractor must comply with the stop work order upon receipt. Within 10 calendar days, or any longer period agreed to by Contractor, the State will either: (a) issue a notice authorizing Contractor to resume work, or (b) terminate the Contract or purchase order. The State will not pay for Contract Activities, Contractor's lost profits, or any additional compensation during a stop work period.
23. **Termination for Cause.** The State may terminate this Contract for cause, in whole or in part, if Contractor, as determined by the State: (a) endangers the value, integrity, or security of any location, data, or personnel; (b) becomes insolvent, petitions for bankruptcy court proceedings, or has an involuntary bankruptcy proceeding filed against it by any creditor; (c) engages in any conduct that may expose the State to liability; (d) breaches any of its material duties or obligations; or (e) fails to cure a breach within the time stated in a notice of breach. Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

If the State terminates this Contract under this Section, the State will issue a termination notice specifying whether Contractor must: (a) cease performance immediately, or (b) continue to perform for a specified period. If it is later determined that Contractor was not in breach of the Contract, the termination will be deemed to have been a Termination for Convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in Section 24, Termination for Convenience.

The State will only pay for amounts due to Contractor for Contract Activities accepted by the State on or before the date of termination, subject to the State's right to set off any amounts owed by the Contractor for the State's reasonable costs in terminating this Contract. The Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees, court costs, transition costs, and any costs the State incurs to procure the Contract Activities from other sources.
24. **Termination for Convenience.** The State may immediately terminate this Contract in whole or in part without penalty and for any reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must: (a) cease performance of the Contract Activities immediately, or (b) continue to perform the Contract Activities in accordance with Section 25, Transition Responsibilities. If the State terminates this Contract for convenience, the State will pay all reasonable costs, as determined by the State, for State approved Transition Responsibilities.
25. **Transition Responsibilities.** Upon termination or expiration of this Contract for any reason, Contractor must, for a period of time specified by the State (not to exceed 10 calendar days), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Contract Activities to continue without interruption or adverse effect, and to facilitate the orderly transfer of such Contract Activities to the State or its designees. Such transition assistance may include, but is not limited to: (a) continuing to perform the Contract Activities at the established Contract rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable Contract Activities, training, equipment, software, leases, reports and other documentation, to the State or the State's designee; (c) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return to the State all materials, data, property, and confidential information provided directly or indirectly to Contractor by any entity, agent, vendor, or employee of the State; (d) transferring title in and delivering to the State, at the State's discretion, all completed or partially completed deliverables prepared under this Contract as of the Contract termination date; and (e) preparing an accurate accounting from which the State and Contractor may reconcile all

outstanding accounts (collectively, "**Transition Responsibilities**"). This Contract will automatically be extended through the end of the transition period.

26. **General Indemnification.** Contractor must defend, indemnify and hold the State, its departments, divisions, agencies, offices, commissions, officers, and employees harmless, without limitation, from and against any and all actions, claims, losses, liabilities, damages, costs, attorney fees, and expenses (including those required to establish the right to indemnification), arising out of or relating to: (a) any breach by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable) of any of the promises, agreements, representations, warranties, or insurance requirements contained in this Contract; (b) any infringement, misappropriation, or other violation of any intellectual property right or other right of any third party; (c) any bodily injury, death, or damage to real or tangible personal property occurring wholly or in part due to action or inaction by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable); and (d) any acts or omissions of Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable).

The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations.

The State is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; (iii) employ its own counsel; and to (iv) retain control of the defense if the State deems necessary. Contractor will not, without the State's written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. To the extent that any State employee, official, or law may be involved or challenged, the State may, at its own expense, control the defense of that portion of the claim.

Any litigation activity on behalf of the State, or any of its subdivisions under this Section, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

27. **Reserved.**

28. **Limitation of Liability.** The State is not liable for consequential, incidental, indirect, or special damages, regardless of the nature of the action.

29. **Disclosure of Litigation, or Other Proceeding.** Contractor must notify the State within 5 calendar days of receiving notice of any litigation, investigation, arbitration, or other proceeding (collectively, "**Proceeding**") involving Contractor, a subcontractor, or an officer or director of Contractor or subcontractor, that arises during the term of the Contract, including: (a) a criminal Proceeding; (b) a parole or probation Proceeding; (c) a Proceeding under the Sarbanes-Oxley Act; (d) a civil Proceeding involving: (1) a claim that might reasonably be expected to adversely affect Contractor's viability or financial stability; or (2) a governmental or public entity's claim or written allegation of fraud; or (e) a Proceeding involving any license that Contractor is required to possess in order to perform under this Contract.

30. **Reserved.**

31. **Reserved.**

32. **Non-Disclosure of Confidential Information.** The parties acknowledge that each party may be exposed to or acquire communication or data of the other party that is confidential, privileged communication not intended to be disclosed to third parties. The provisions of this Section survive the termination of this Contract.

- a. **Meaning of Confidential Information.** For the purposes of this Contract, the term "**Confidential Information**" means all information and documentation of a party that: (a) has been marked "confidential" or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked "confidential" or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked "confidential" or with words of similar



meaning; and, (c) should reasonably be recognized as confidential information of the disclosing party. The term "Confidential Information" does not include any information or documentation that was: (a) subject to disclosure under the Michigan Freedom of Information Act (FOIA); (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party's proprietary rights; (d) obtained from a source other than the disclosing party without an obligation of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure by, through, or on behalf of, the receiving party). For purposes of this Contract, in all cases and for all matters, State Data is deemed to be Confidential Information.

- b. Obligation of Confidentiality. The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to a subcontractor is permissible where: (a) use of a subcontractor is authorized under this Contract; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the subcontractor's responsibilities; and (c) Contractor obligates the subcontractor in a written contract to maintain the State's Confidential Information in confidence. At the State's request, any employee of Contractor or any subcontractor may be required to execute a separate agreement to be bound by the provisions of this Section.
  - c. Cooperation to Prevent Disclosure of Confidential Information. Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party immediately in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract and each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.
  - d. Remedies for Breach of Obligation of Confidentiality. Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, in the case of the State, at the sole election of the State, the immediate termination, without liability to the State, of this Contract or any Statement of Work corresponding to the breach or threatened breach.
  - e. Surrender of Confidential Information upon Termination. Upon termination of this Contract or a Statement of Work, in whole or in part, each party must, within 5 calendar days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party's possession, custody, or control; provided, however, that Contractor must return State Data to the State following the timeframe and procedure described further in this Contract. Should Contractor or the State determine that the return of any Confidential Information is not feasible, such party must destroy the Confidential Information and must certify the same in writing within 5 calendar days from the date of termination to the other party.
33. **Reserved.**
34. **Reserved.**
35. **Reserved.**
36. **Records Maintenance, Inspection, Examination, and Audit.** The State or its designee may audit Contractor to verify compliance with this Contract. Contractor must retain, and provide to the State or its designee and the auditor general upon request, all financial and accounting records related to the

Contract through the term of the Contract and for 4 years after the latter of termination, expiration, or final payment under this Contract or any extension ("**Audit Period**"). If an audit, litigation, or other action involving the records is initiated before the end of the Audit Period, Contractor must retain the records until all issues are resolved.

Within 10 calendar days of providing notice, the State and its authorized representatives or designees have the right to enter and inspect Contractor's premises or any other places where Contract Activities are being performed, and examine, copy, and audit all records related to this Contract. Contractor must cooperate and provide reasonable assistance. If any financial errors are revealed, the amount in error must be reflected as a credit or debit on subsequent invoices until the amount is paid or refunded. Any remaining balance at the end of the Contract must be paid or refunded within 45 calendar days.

This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.

37. **Warranties and Representations.** Contractor represents and warrants: (a) Contractor is the owner or licensee of any Contract Activities that it licenses, sells, or develops and Contractor has the rights necessary to convey title, ownership rights, or licensed use; (b) all Contract Activities are delivered free from any security interest, lien, or encumbrance and will continue in that respect; (c) the Contract Activities will not infringe the patent, trademark, copyright, trade secret, or other proprietary rights of any third party; (d) Contractor must assign or otherwise transfer to the State or its designee any manufacturer's warranty for the Contract Activities; (e) the Contract Activities are merchantable and fit for the specific purposes identified in the Contract; (f) the Contract signatory has the authority to enter into this Contract; (g) all information furnished by Contractor in connection with the Contract fairly and accurately represents Contractor's business, properties, finances, and operations as of the dates covered by the information, and Contractor will inform the State of any material adverse changes; and (h) all information furnished and representations made in connection with the award of this Contract is true, accurate, and complete, and contains no false statements or omits any fact that would make the information misleading. A breach of this Section is considered a material breach of this Contract, which entitles the State to terminate this Contract under Section 23, Termination for Cause.
38. **Conflicts and Ethics.** Contractor will uphold high ethical standards and is prohibited from: (a) holding or acquiring an interest that would conflict with this Contract; (b) doing anything that creates an appearance of impropriety with respect to the award or performance of the Contract; (c) attempting to influence or appearing to influence any State employee by the direct or indirect offer of anything of value; or (d) paying or agreeing to pay any person, other than employees and consultants working for Contractor, any consideration contingent upon the award of the Contract. Contractor must immediately notify the State of any violation or potential violation of these standards. This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.
39. **Compliance with Laws.** Contractor must comply with all federal, state and local laws, rules and regulations.
40. **Prevailing Wage.** This Contract and any subcontract is subject to the Prevailing Wage Act, 1965 PA 166. Contractor must comply with the state prevailing wage law and its requirements.
41. **Reserved.**
42. **Nondiscrimination.** Under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, *et seq.*, and the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, *et seq.*, Contractor and its subcontractors agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, or mental or physical disability. Breach of this covenant is a material breach of this Contract.
43. **Unfair Labor Practice.** Under MCL 423.324, the State may void any Contract with a Contractor or subcontractor who appears on the Unfair Labor Practice register compiled under MCL 423.322.
44. **Governing Law.** This Contract is governed, construed, and enforced in accordance with Michigan law, excluding choice-of-law principles, and all claims relating to or arising out of this Contract are governed

by Michigan law, excluding choice-of-law principles. Any dispute arising from this Contract must be resolved in Michigan Court of Claims. Contractor consents to venue in Ingham County, and waives any objections, such as lack of personal jurisdiction or *forum non conveniens*. Contractor must appoint agents in Michigan to receive service of process.

45. **Non-Exclusivity.** Nothing contained in this Contract is intended nor will be construed as creating any requirements contract with Contractor. This Contract does not restrict the State or its agencies from acquiring similar, equal, or like Contract Activities from other sources.
46. **Force Majeure.** Neither party will be in breach of this Contract because of any failure arising from any disaster or acts of god that are beyond their control and without their fault or negligence. Each party will use commercially reasonable efforts to resume performance. Contractor will not be relieved of a breach or delay caused by its subcontractors. If immediate performance is necessary to ensure public health and safety, the State may immediately contract with a third party.
47. **Dispute Resolution.** The parties will endeavor to resolve any Contract dispute in accordance with this provision. The dispute will be referred to the parties' respective Contract Administrators or Program Managers. Such referral must include a description of the issues and all supporting documentation. The parties must submit the dispute to a senior executive if unable to resolve the dispute within 15 business days. The parties will continue performing while a dispute is being resolved, unless the dispute precludes performance. A dispute involving payment does not preclude performance.

Litigation to resolve the dispute will not be instituted until after the dispute has been elevated to the parties' senior executive and either concludes that resolution is unlikely, or fails to respond within 15 business days. The parties are not prohibited from instituting formal proceedings: (a) to avoid the expiration of statute of limitations period; (b) to preserve a superior position with respect to creditors; or (c) where a party makes a determination that a temporary restraining order or other injunctive relief is the only adequate remedy. This Section does not limit the State's right to terminate the Contract.
48. **Media Releases.** News releases (including promotional literature and commercial advertisements) pertaining to the Contract or project to which it relates must not be made without prior written State approval, and then only in accordance with the explicit written instructions of the State.
49. **Website Incorporation.** The State is not bound by any content on Contractor's website unless expressly incorporated directly into this Contract.
50. **Order of Precedence.** In the event of a conflict between the terms and conditions of the Contract, the exhibits, a purchase order, or an amendment, the order of precedence is: (a) the purchase order; (b) the amendment; (c) Exhibit A; (d) any other exhibits; and (e) the Contract.
51. **Severability.** If any part of this Contract is held invalid or unenforceable, by any court of competent jurisdiction, that part will be deemed deleted from this Contract and the severed part will be replaced by agreed upon language that achieves the same or similar objectives. The remaining Contract will continue in full force and effect.
52. **Waiver.** Failure to enforce any provision of this Contract will not constitute a waiver.
53. **Survival.** The provisions of this Contract that impose continuing obligations, including warranties and representations, termination, transition, insurance coverage, indemnification, and confidentiality, will survive the expiration or termination of this Contract.
54. **Entire Contract and Modification.** This Contract is the entire agreement and replaces all previous agreements between the parties for the Contract Activities. This Contract may not be amended except by signed agreement between the parties (a "**Contract Change Notice**").

# STATE OF MICHIGAN

## EXHIBIT A STATEMENT OF WORK CONTRACT ACTIVITIES

### BACKGROUND

The Department of Licensing and Regulatory Affairs (LARA) received funding to address needs related to the Flint declaration of emergency issued on January 5, 2016, including, but not limited to, plumbing fixture replacements in schools, child care and adult foster care centers, nursing homes, dialysis centers, and surgery centers within the city of Flint.

### SCOPE

The services required under this contract include replacement of plumbing fixtures in schools, child care and adult foster care centers, nursing homes, dialysis centers, and surgery centers within the city of Flint. The work must be performed Monday through Friday, when students are not in the buildings, and on weekends. LARA will provide the contractor the list of buildings that work needs to be performed, including a room by room schedule of fixtures to be replaced at each building. In addition, LARA will prioritize the work by building and location. LARA will provide the fixtures and miscellaneous supplies.

### REQUIREMENTS

The contractor must utilize Michigan licensed plumbers to perform all services under the contract. The Plumbers and Pipefitters, UA Local 370, will be the point of contact for any Michigan licensed plumber to notify if interested in performing the services outlined in the contract.

The contractor will serve as the point of contact for all services rendered under the contract, including, but not limited to:

- 1) Obtain Michigan licensed plumbers to remove existing plumbing fixtures and install new fixtures,
- 2) Coordinate work schedule of plumbers in accordance with the list of buildings prioritized by LARA,
- 3) Manage man power in each building and ensure materials are available to perform the work,
- 4) The work must be performed Monday through Friday, when the public is not occupying the buildings, and on weekends.
- 5) Report to LARA any unforeseen developments while providing services
- 6) Make deliveries to buildings and dispose of trash/debris,
- 7) Compile the following weekly reports:
  - a. status of fixture replacements at each building
    - i. number of rooms completed
    - ii. number of fixtures replaced
    - iii. total labor hours by plumber
    - iv. miscellaneous supplies purchased by contractor
  - b. invoice/request for payment
    - i. plumber labor costs
      1. daily timesheet - name of plumber, assigned building, hours worked per assignment/day, number of fixtures replaced

ii. administrative labor costs

1. daily timesheet – delivery/trash services, project manager, office support
  - a. name
  - b. building services performed
  - c. hours worked
  - d. description of services performed

## **1. General Requirements**

### **1.1. Product Specifications**

The Contractor must install the fixtures provided only by LARA and any miscellaneous supplies identified as determined by LARA in accordance with State of Michigan plumbing codes. All fixtures must be installed in acceptable working conditions with no leaks.

Any miscellaneous supplies purchased by the Contractor must meet Michigan plumbing codes.

### **1.2. Warranties**

All replaced fixtures must be inspected by the State of Michigan. The contractor must repair or replace any fixtures that are not installed to code or need to be brought into compliance.

### **1.3. Recall Requirements and Procedures**

The Contractor is not responsible for any recall procedures related to fixtures installed at buildings identified by LARA.

### **1.4. Quality Assurance Program**

All workmanship must be performed in accordance with State of Michigan plumbing codes.

### **1.5. Incentives**

## **2. Service Levels**

### **2.1. Time Frames**

All Contract Activities must be performed upon receipt of list of buildings and fixtures for installation. The receipt of order date is pursuant to Section 2, Notices, of the Standard Contract Terms.

### **2.2. Reserved**

### **2.3. Installation**

Installation will be expected in accordance with schedule provided by LARA. Installation will be considered complete when replaced fixtures have passed inspection by the State of Michigan.

### **2.4. Repairs**

The contractor must repair or replace any fixtures that are not installed to code or need to be brought into compliance as identified by State of Michigan plumbing inspection. Repairs or replacements must be performed within 24 hours of identification.

### **2.5. Reserved**

### **2.6. Reserved**

## **2.7. Reporting**

The Contractor must notify any of the following individuals upon discovery of any unforeseen development:

- 1) Alesha Gensler – [Gensler1@michigan.gov](mailto:Gensler1@michigan.gov) 517-335-3104
- 2) Joe ? –
- 3) Karen Towne – [Townek@michigan.gov](mailto:Townek@michigan.gov) (517) 243-8938

Weekly reports are to be sent to:

Karen Towne  
State of Michigan  
Department of Licensing and Regulatory Affairs  
611 W. Ottawa  
Lansing, MI 48933  
[townek@michigan.gov](mailto:townek@michigan.gov)

## **2.8. Meetings**

The Contractor must attend the following meetings:

A kick-off meeting will be scheduled by LARA with the contractor to distribute the list of buildings and deliver the fixtures.

The State may request other meetings as it deems appropriate.

## **3. Staffing**

### **3.1. Contractor Representative**

The Contractor must appoint a Project Manager, specifically assigned to State of Michigan, that will respond to State inquiries regarding the Contract Activities, answering questions related to work performed, invoices, etc. (the "Contractor Representative").

The Contractor must notify the Contract Administrator at least 10 calendar days before removing or assigning a new Contractor Representative.

### **3.2. Key Personnel**

The Contractor must appoint a non-working Superintendent who will be directly responsible for the day to day oversight of the plumbers performing the services under the Contract ("Key Personnel"). Key Personnel must be specifically assigned to this contract, be a Michigan licensed plumber, be knowledgeable on the contractual requirements, and respond to State inquiries within 12 hours.

Contractor's Key Personnel must be on-site at designated buildings identified by LARA while services are being performed (see Requirements - #4).

The Contractor may not remove or assign Key Personnel without the prior consent of the State. Prior consent is not required for reassignment for reasons beyond the Contractor's control, including illness, disability, death, leave of absence, personal emergency circumstances, resignation, or termination for cause. The State may request a résumé and conduct an interview before approving a change. The State may require a training period for replacement personnel.

**The Contractor must submit a list of licensed plumbers to LARA prior to work being performed.**

### **3.3. Non-Key Personnel**

The Contractor must notify the Contract Administrator at least 10 calendar days before removing or assigning non-key personnel.

### **3.4. Reserved**

### **3.5. Reserved**

### **3.6. Reserved**

### **3.7. Disclosure of Subcontractors**

If the Contractor intends to utilize subcontractors, the Contractor must disclose the following:

The legal business name; address; telephone number; a description of subcontractor's organization and the services it will provide; and information concerning subcontractor's ability to provide the Contract Activities.

The relationship of the subcontractor to the Contractor.

Whether the Contractor has a previous working experience with the subcontractor. If yes, provide the details of that previous relationship.

A complete description of the Contract Activities that will be performed or provided by the subcontractor.

### **3.8. Security**

The Contractor will be subject the following security procedures:

The Contractor must ensure all staff performing services under the contract wear State issued identification badges.

## **4. Pricing**

### **4.1. Price Term**

Pricing is firm for the entire length of the Contract.

### **4.2. Price Changes**

Adjustments will be based on changes in actual Contractor costs. Any request must be supported by written evidence documenting the change in costs. The State may consider sources, such as the Consumer Price Index; Producer Price Index; other pricing indices as needed; economic and industry data; manufacturer or supplier letters noting the increase in pricing; and any other data the State deems relevant.

Following the presentation of supporting documentation, both parties will have 30 days to review the information and prepare a written response. If the review reveals no need for modifications, pricing will remain unchanged unless mutually agreed to by the parties. If the review reveals that changes are needed, both parties will negotiate such changes, for no longer than 30 days, unless extended by mutual agreement.

The Contractor remains responsible for Contract Activities at the current price for all services performed before the mutual execution of a Change Notice indicating the start date of the new Pricing Period.

## **5. Ordering**

### **5.1. Authorizing Document**

The appropriate authorizing document for the Contract will be Purchase Order.

### **5.2 Reserved**

## **6. Reserved**

### **6.1. Reserved**

### **6.2. Reserved**

## **7. Acceptance**

### **7.1. Acceptance, Inspection and Testing**

The State will use the following criteria to determine acceptance of the Contract Activities:

All replaced fixtures must be inspected by the State of Michigan. The contractor must repair or replace any fixtures that are not installed to code or need to be brought into compliance. Replacement of each fixture will be considered complete when inspection report is filed with no findings.

### **7.2. Final Acceptance**

Contract Activities will be complete when all fixtures have been replaced in each building included in the list provided by LARA and all plumbing inspections of replaced fixtures are filed with no findings.

## **8. Invoice and Payment**

### **8.1. Invoice Requirements**

All invoices submitted to the State must include: (a) date; (b) purchase order; (d) description of the Contract Activities (see Requirements - #7); (e) unit price; (f) shipping cost (if any); and (g) total price.

### **8.2. Payment Methods**

The State will make payment for Contract Activities via EFT.

### **8.3. Procedure**

Contractor must submit all invoices to:

Karen Towne  
State of Michigan  
Department of Licensing and Regulatory Affairs  
611 W. Ottawa  
Lansing, MI 48933  
[townek@michigan.gov](mailto:townek@michigan.gov)

## **9. Project Plan**

The Contractor will carry out this project under the direction and control of the Program Manager. Upon issuance of the contract, the Contractor and LARA will meet to execute the plan for replacement of fixtures in the designated buildings provided by LARA.

**The Contractor must submit a list of licensed plumbers to LARA prior to work being performed.**

## **10. Licensing Agreement**

The Contractor must provide a copy of any applicable licensing agreement.

## **11. Reserved**

## **12. Additional Requirements**

### **12.1. Environmental and Energy Efficient Products**

The Contractor must use only the State provided fixtures and supplies to perform work. Any miscellaneous supplies purchased by the Contractor must meet Michigan plumbing codes.

### **12.2. Hazardous Chemical Identification**

In accordance with the federal Emergency Planning and Community Right-to-Know Act, 42 USC 11001, *et seq.*, as amended, the Contractor must provide a Material Safety Data Sheet listing any hazardous chemicals, as defined in 40 CFR §370.2, that is discovered while performing services.

The Contractor must report to LARA immediately upon identification of any hazardous chemicals or materials that is discovered while providing services under the contract.

### **12.3. Mercury Content**

Pursuant to MCL 18.1261d, mercury-free products must be procured when possible. The Contractor must explain if it intends to provide products containing mercury, the amount or concentration of mercury, and whether cost competitive alternatives exist. If a cost competitive alternative does exist, the Contractor must provide justification as to why the particular product is essential. All products containing mercury must be labeled as containing mercury.

### **12.4. Brominated Flame Retardants**

The State prefers to purchase products that do not contain brominated flame retardants (BFRs) whenever possible. The Contractor must disclose whether the products contain BFRs.



# STATE OF MICHIGAN

## EXHIBIT C PRICING

	Monday–Friday 10 hours or less	Monday – Friday & Saturday 10 – 12 hours	Sunday & Holidays over 10 hours
Delivery/Trash	\$50.00/hour	\$75.00/hour	\$100.00/hour
Office Admin.	\$50.00/hour	N/A	N/A
Superintendent	\$90.00/hour	\$135.00/hour	\$175.00/hour
Plumber	\$90.00/hour	\$135.00/hour	\$175.00/hour

Any materials purchased by contractor will be charged at cost plus 15% overhead.

### Estimated Budget:

Delivery/Trash – 3 @ 660 hours = \$42,150

Office Admin. – 1 @ 160 hours = \$8,000

Superintendent – 1 @ 220 hours = \$25,140

Plumber – 24 @ 5,280 hours = \$603,360

(1,600 fixtures installed over 22 days = 73 fixtures installed/day)

(73 fixtures installed/day divided by 3 fixtures per day per plumber = 24 plumbers per day)

Materials - \$100,000

Total Installed Estimated Cost: \$778,650

---

**From:** Pohl, Allan (LARA)  
**Sent:** Monday, February 08, 2016 8:30 AM  
**To:** Brownlee, Jeff (DTMB)  
**Cc:** Droste, LeAnn (LARA); Maynard, Sharon (DTMB)  
**Subject:** Re: Flint Declaration of Emergency Contract

Director Zimmer will be calling you

Sent from my iPad

On Feb 8, 2016, at 8:28 AM, Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)> wrote:

A few thoughts:

When can they invoice you? What happens if they don't install things? Why the 15% markup on parts purchased? You're already paying for the administrative overhead on an hourly basis.

Most importantly, it looks like they can invoice you for labor and parts regardless if they actually produce the final objective. You may want to address this.

Jeff

Sent from my iPhone

On Feb 8, 2016, at 8:19 AM, Droste, LeAnn (LARA) <[drostel1@michigan.gov](mailto:drostel1@michigan.gov)> wrote:

Hi Jeff –

LARA has been in discussions with the Plumbers and Pipefitters, UA Local 370, to obtain plumbers for replacement of fixtures in Flint schools and other institutions as identified in P.A. 3 of 2016. I have drafted the attached documents for the contract and have sent to Local 370 for review. We are looking to begin replacement of fixtures next week; therefore, this email is to notify you of this LARA contract.

A letter to the Ad Board will be forthcoming as well explaining the process used to obtain the services.

Please let me know if you have any questions.

Thank you!

LeAnn Droste  
Acting Director  
Finance and Administrative Services  
Department of Licensing & Regulatory Affairs  
517-373-3847  
517-373-2927 fax

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disclose it to anyone else. Your receipt of this message is not intended to waive any applicable privilege. Neither this e-mail nor any attachment(s) establish an attorney-client relationship, constitute an electronic signature or provide consent to contract electronically, unless expressly so stated by the sender in the body of this e-mail or an attachment.

<Plumbing Standard Contract Terms.pdf>

<Exhibit A - Plumbing Services.pdf>

<Plumbing Exhibit C - Pricing.pdf>

---

**From:** Droste, LeAnn (LARA)  
**Sent:** Monday, February 08, 2016 8:38 AM  
**To:** Brownlee, Jeff (DTMB)  
**Cc:** Pohl, Allan (LARA); Maynard, Sharon (DTMB); Zimmer, Mike (LARA)  
**Subject:** RE: Flint Declaration of Emergency Contract

Jeff --

Exhibit A, Section 7(b) states the vendor must submit weekly invoices for services rendered in the week. I believe Exhibit A, General Requirements, specifically Sections 1.1 and 1.2 explain the installation process. All work will be inspected by the State of Michigan. Therefore, any work that is invoiced will have been inspected.

Hope this helps!

LeAnn Droste  
Acting Director  
Finance and Administrative Services  
Department of Licensing & Regulatory Affairs  
517-373-3847  
517-373-2927 fax

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---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 08, 2016 8:29 AM  
**To:** Droste, LeAnn (LARA)  
**Cc:** Pohl, Allan (LARA); Maynard, Sharon (DTMB)  
**Subject:** Re: Flint Declaration of Emergency Contract

A few thoughts:

When can they invoice you? What happens if they don't install things? Why the 15% markup on parts purchased? You're already paying for the administrative overhead on an hourly basis.

Most importantly, it looks like they can invoice you for labor and parts regardless if they actually produce the final objective. You may want to address this.

Jeff

Sent from my iPhone

On Feb 8, 2016, at 8:19 AM, Droste, LeAnn (LARA) <[drostel1@michigan.gov](mailto:drostel1@michigan.gov)> wrote:

Hi Jeff –

LARA has been in discussions with the Plumbers and Pipefitters, UA Local 370, to obtain plumbers for replacement of fixtures in Flint schools and other institutions as identified in P.A. 3 of 2016. I have drafted the attached documents for the contract and have sent to Local 370 for review. We are looking to begin replacement of fixtures next week; therefore, this email is to notify you of this LARA contract.

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Please let me know if you have any questions.

Thank you!

LeAnn Droste  
Acting Director  
Finance and Administrative Services  
Department of Licensing & Regulatory Affairs  
517-373-3847  
517-373-2927 fax

LEGAL NOTICE: This e-mail is for the exclusive use of the intended recipient(s), and may contain privileged and confidential information. If you are not an intended recipient, please notify the sender, delete the e-mail from your computer and do not copy or disclose it to anyone else. Your receipt of this message is not intended to waive any applicable privilege. Neither this e-mail nor any attachment(s) establish an attorney-client relationship, constitute an electronic signature or provide consent to contract electronically, unless expressly so stated by the sender in the body of this e-mail or an attachment.

<Plumbing Standard Contract Terms.pdf>

<Exhibit A - Plumbing Services.pdf>

<Plumbing Exhibit C - Pricing.pdf>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Monday, February 08, 2016 1:58 PM  
**To:** Brownlee, Jeff (DTMB)  
**Cc:** Maynard, Sharon (DTMB)  
**Subject:** Flint - emergency purchases for services

Jeff

I suggest that Denice complete a brief write up for you to share across all agencies regarding CS-138 and emergency purchases. Heather and Jenni could assist with distribution to the audiences you select (PLT, agency purchasing managers).

DTMB -- FS does Commodities' CS-138's, so this is not a topic I have much experience with.

Rebecca

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Monday, February 8, 2016 1:54 PM  
**To:** Pratt, Jeff (DTMB) <prattj@michigan.gov>; Doll, Jeanette (DTMB) <dollj@michigan.gov>  
**Cc:** Christensen, Chris (DTMB) <christensenc4@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Subject:** FW: Armed Guard Deployment - Second Flint warehouse

Denice

Thanks for handling the CS138 issues for both of the Flint guard requests.

Copied folks so that they all know services should have an initial 1 month emergency PO.

Rebecca

---

**From:** Ballard, Denice (DTMB)  
**Sent:** Monday, February 8, 2016 12:43 PM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Subject:** RE: Armed Guard Deployment - Second Flint warehouse

Because we have State employees working as armed guards (MSP), we are required to get approval from the Civil Service Commission to hire outside of the State Classified Service. I can justify a one month emergency purchase order based on short term/temporary/intermittent needs as long as we stay under 832 hours. For a longer term, we need to show a cost savings for contracting the service, otherwise Civil Service will deny our request.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Monday, February 08, 2016 12:33 PM  
**To:** Ballard, Denice (DTMB) <ballardd@michigan.gov>  
**Subject:** RE: Armed Guard Deployment - Second Flint warehouse

CS138 issues?

---

**From:** Ballard, Denice (DTMB)  
**Sent:** Monday, February 8, 2016 10:42 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** RE: Armed Guard Deployment - Second Flint warehouse  
**Importance:** High

Rebecca - We will handle the immediate request as an emergency purchase order. But we have CS138 issues with guard service.

Jeff – There is no pricing mentioned in this request. I need a cost estimate for the first month of service so I can enter an emergency CS138 ASAP.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Monday, February 08, 2016 9:21 AM  
**To:** Pratt, Jeff (DTMB) <[prattj@michigan.gov](mailto:prattj@michigan.gov)>; Ballard, Denice (DTMB) <[ballardd@michigan.gov](mailto:ballardd@michigan.gov)>  
**Cc:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Hunter, Lymon (DTMB) <[hunterl@michigan.gov](mailto:hunterl@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: Armed Guard Deployment - Second Flint warehouse

Denice

Do you plan on executing this as an emergency purchase order? Or do you want us to research the possibility of whether it can be added to a current contract?

Will you be working with DK to negotiate rates again? Hopefully \$43/hr or lower.

Please let me know if you have questions.  
Thank you.  
Rebeca

---

**From:** Pratt, Jeff (DTMB)  
**Sent:** Saturday, February 6, 2016 2:23 PM  
**To:** Matt Rockwell <[mattrockwell@dksecurity.com](mailto:mattrockwell@dksecurity.com)>  
**Cc:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Ballard, Denice (DTMB) <[ballardd@michigan.gov](mailto:ballardd@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; MSP-EOC-MDTMB <[MSP-EOC-MDTMB@michigan.gov](mailto:MSP-EOC-MDTMB@michigan.gov)>  
**Subject:** Armed Guard Deployment  
**Importance:** High

Matt,

Request was received today to deploy an armed security guard for a second warehouse facility in the Flint region. Could you please coordinate deployment of an armed guard as per the following details? Advise if you have any questions or require any additional details. Please confirm assignment at your earliest opportunity.

Start date/time: Mon. 2/8/16 1900hr

Hours of Operation: 1900 – 0700hrs Sun – Sat.

Duration: Month-to-month

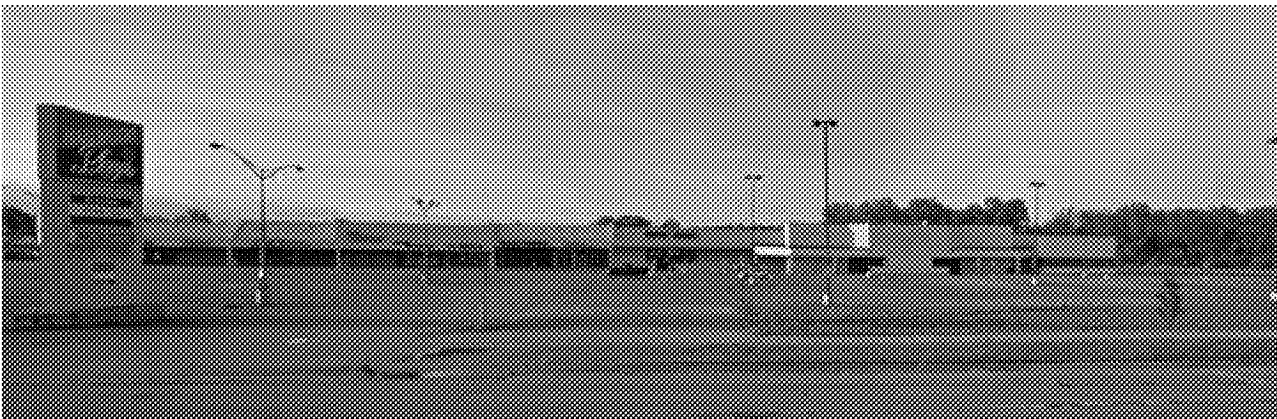
Location: Former Kroger store in Hallwood Plaza Northwest corner, 2629 W. Pierson Rd

Post Order: Patrol warehouse interior to deter, detect and report suspicious and/or criminal activity.

Post Confirmation: Call made to DK Command Center start/end of shift and hourly while on duty

Incident Reporting: suspicious/criminal activity - 911

Uniform & Equipment: Standard uniform, side arm, cellphone and flash light (Maglite Baton type 600 Lumens min. or equal).



Thanks,

Jeff

Jeff Pratt

Michigan Department of Technology, Management & Budget

Cybersecurity and Infrastructure Protection

Office of Infrastructure Protection

Cell: (517) 202-4146

Office: (517) 241-4391



Message

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**From:** Bankowski, Jeffrey S. (DTMB) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3E4E63C256BE4D1DB626C33F2B02EF16-BANKOWSKI J]  
**Sent:** 2/8/2016 3:43:36 PM  
**To:** Moses Bingham [mosesbingham@flintymca.org]  
**CC:** mwilliams@orchards.org; Creagh, Keith (DEQ) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=792ccffbe0a340e6845043387b624045-Creagh Keith]; Tedder, Greg (TED) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=795bfcdcbccd24be3b3252801de9331f3-Tedder Greg]; Brownlee, Jeff (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bae5bd3c6f244006a9a672e3df1f299c-Brownlee Jeff]; Weise, Kevin (MSP) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=719e448bf8e544988daac74adcd3f1d3-Weise, Kevi]  
**Subject:** RE: Flint Water Testing Follow up

Hi Moses,

Thanks for the note and reaching out.

I am working through some of the action items from Friday's meeting.

Greg Tedder included on the email would manage the specific grant we discussed with respect to economic support regarding talent and economic development for the area.

I will coordinate with Kevin Weise and the Governor's office today to obtain the contact list of potential hires that we discussed on Friday.

I also include Jeff Brownlee – the Chief Procurement Officer of the State - he will be able to support you and I on the contract draft and the detailed requirements on the water testing.

I will call you to discuss further so we can get working on a sample statement of work.

Best regards,

Jeff

Jeffrey S. Bankowski

Chief Internal Auditor

State of Michigan - Office of Internal Audit Services

George W. Romney Building

111 South Capitol Avenue – 8<sup>th</sup> Floor

Lansing, Michigan 48909

Phone: (517) 373-9497

Cell: (517) 898-3703

**From:** Moses Bingham [mailto:mosesbingham@flintymca.org]

**Sent:** Monday, February 08, 2016 3:23 PM

**To:** Creagh, Keith (DEQ); Bankowski, Jeffrey S. (DTMB); Tedder, Greg (TED)

**Cc:** mwilliams@orchards.org

**Subject:** Flint Water Testing Follow up

Hello Gentlemen

I am following up per the discussion at the Mission Flint Team meeting on Friday February 5<sup>th</sup>. In conversation with Mr. Williams from Orchard Services we wanted to get insight to the procurement process, and contract draft for the Flint water testing project. An announcement went out to the media earlier today; however neither Mr. Williams or myself

has received the initial contact list of potential hires, or update on next steps. We can easily move forward with outreach and Recruitment, and screening individuals, but we need to settle on a few details as far as: budget, liability and training. Please let me know if there is anything we can do assist with this process. I can be reached at [REDACTED]  
[REDACTED] Thank you, we look forward to hearing from you.

**Moses Bingham**

Director, Safe  
Places

YMCA OF GREATER FLINT

Flint, MI 48503

(P) 810 232 9622 ext 213 (F) 810 232 9329

(E) [mosesbingham@flintymca.org](mailto:mosesbingham@flintymca.org) (W) [www.flintymca.org](http://www.flintymca.org)

The Y: We're for youth development, healthy living and social responsibility.

---

**From:** Bankowski, Jeffrey S. (DTMB)  
**Sent:** Monday, February 08, 2016 5:43 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Flint Water Testing Follow up

[http://www.mlive.com/news/flint/index.ssf/2016/02/flint\\_residents\\_being\\_hired\\_to.html](http://www.mlive.com/news/flint/index.ssf/2016/02/flint_residents_being_hired_to.html)

I will call you to discuss -- just driving awareness for you right now

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 08, 2016 5:25 PM  
**To:** Bankowski, Jeffrey S. (DTMB); Moses Bingham  
**Subject:** RE: Flint Water Testing Follow up

Jeff Ba,  
Thanks. Not a ton of detail here for me to understand what support I can provide. Please give me a call to further discuss if you feel we can be of assistance right away.  
Thanks,  
Jeff Br

---

**From:** Bankowski, Jeffrey S. (DTMB)  
**Sent:** Monday, February 8, 2016 3:44 PM  
**To:** Moses Bingham <[mosesbingham@flintymca.org](mailto:mosesbingham@flintymca.org)>  
**Cc:** [mwilliams@orchards.org](mailto:mwilliams@orchards.org); Creagh, Keith (DEQ) <[creaghk@michigan.gov](mailto:creaghk@michigan.gov)>; Tedder, Greg (TED) <[TedderG@michigan.gov](mailto:TedderG@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Weise, Kevin (MSP) <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
**Subject:** RE: Flint Water Testing Follow up

Hi Moses,

Thanks for the note and reaching out.

I am working through some of the action items from Friday's meeting.

Greg Tedder included on the email would manage the specific grant we discussed with respect to economic support regarding talent and economic development for the area.

I will coordinate with Kevin Weise and the Governor's office today to obtain the contact list of potential hires that we discussed on Friday.

I also include Jeff Brownlee -- the Chief Procurement Officer of the State - he will be able to support you and I on the contract draft and the detailed requirements on the water testing.

I will call you to discuss further so we can get working on a sample statement of work.

Best regards,

Jeff

Jeffrey S. Bankowski  
Chief Internal Auditor  
State of Michigan - Office of Internal Audit Services  
George W. Romney Building  
111 South Capitol Avenue -- 8<sup>th</sup> Floor  
Lansing, Michigan 48909  
Phone: (517) 373-9497  
Cell: (517) 898-3703

---

**From:** Moses Bingham [<mailto:mosesbingham@flintymca.org>]  
**Sent:** Monday, February 08, 2016 3:23 PM  
**To:** Creagh, Keith (DEQ); Bankowski, Jeffrey S. (DTMB); Tedder, Greg (TED)  
**Cc:** [mwilliams@orchards.org](mailto:mwilliams@orchards.org)  
**Subject:** Flint Water Testing Follow up

Hello Gentlemen

I am following up per the discussion at the Mission Flint Team meeting on Friday February 5<sup>th</sup>. In conversation with Mr. Williams from Orchard Services we wanted to get insight to the procurement process, and contract draft for the Flint water testing project. An announcement went out to the media earlier today; however neither Mr. Williams or myself has received the initial contact list of potential hires, or update on next steps. We can easily move forward with outreach and Recruitment, and screening individuals, but we need to settle on a few details as far as: budget, liability and training. Please let me know if there is anything we can do assist with this process. I can be reached at 810-813-7802. Thank you, we look forward to hearing from you.

**Moses Bingham**  
Director, Safe  
Places

YMCA OF GREATER FLINT  
Flint, MI 48503  
(P) 810 232 9622 ext 213 (F) 810 232 9329  
(E) [mosesbingham@flintymca.org](mailto:mosesbingham@flintymca.org) (W) [www.flintymca.org](http://www.flintymca.org)

The Y: We're for youth development, healthy living and social responsibility.

---

**From:** Bliss, Mike (DTMB)  
**Sent:** Tuesday, February 09, 2016 6:47 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** FW: FOIA Request From the Detroit Free Press Re: Flint Water

As you likely know Gary Buckberry will handle the response as this is a DTMB FOIA not a Procurement FOIA.

The gist of the entire FOIA ( get rid of all the peripheral language is):

Copies of the documents, including but not limited to emails already requested by and provided to Progress Michigan or those associated with the organization related to any and all discussion of Flint's water supply, including but not limited to contaminant such as lead and copper in the water as well as any and all discussion of Legionnaire's disease in Genesee County, Mich.

Every and all types of records associated with this. SO if anyone in this office has these records we need to get them to Gary.

Otherwise we have nothing to add.

Regards

*Mike Bliss*

State of Michigan  
DTMB Procurement  
517-284-7034



HELP. CONNECT. SOLVE.

---

**From:** Buckberry, Gary (DTMB)  
**Sent:** Monday, February 08, 2016 7:54 AM  
**To:** Bliss, Mike (DTMB) <blissm@michigan.gov>  
**Subject:** RE: FOIA Request From the Detroit Free Press Re: Flint Water

Yes, coordinating it with a number of people.

-----Original Appointment-----

**From:** Bliss, Mike (DTMB) **On Behalf Of** Trakul, Pamela (DTMB)  
**Sent:** Sunday, February 07, 2016 5:46 PM  
**To:** Buckberry, Gary (DTMB)  
**Cc:** Martin, Tamara (DTMB)  
**Subject:** Fw: FOIA Request From the Detroit Free Press Re: Flint Water  
**When:** Friday, February 05, 2016 3:30 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** DTMB Cass Innovation Room

Gary

Can I assume your coordinating this response

I have a sinus infection and likely will be home Monday to allow the prescription to help with the nasal and sinus swelling

Thanks \_\_\_\_\_

From: Brownlee, Jeff (DTMB) on behalf of Trakul, Pamela (DTMB)  
Sent: Friday, February 5, 2016 10:21 AM  
To: Bliss, Mike (DTMB)  
Cc: Calahan, Heather (DTMB); Wellman, Jeff (DTMB)  
Subject: Fwd: FOIA Request From the Detroit Free Press Re: Flint Water  
When: Friday, February 5, 2016 3:30 PM-4:00 PM.  
Where: DTMB Cass Innovation Room

Mike,  
Please review and advise. Thank you.  
Jeff

Sent from my iPhone

Begin forwarded message:

From: "Trakul, Pamela (DTMB)" <TrakulP@michigan.gov<mailto:TrakulP@michigan.gov>>  
To: "Stibitz, Brom (DTMB)" <StibitzB@michigan.gov<mailto:StibitzB@michigan.gov>>, "Buhs, Caleb (DTMB)" <BuhsC@michigan.gov<mailto:BuhsC@michigan.gov>>, "Buckberry, Gary (DTMB)" <buckberryg@michigan.gov<mailto:buckberryg@michigan.gov>>, "Christensen, Chris (DTMB)" <christensenc4@michigan.gov<mailto:christensenc4@michigan.gov>>, "Turnquist, Michael (DTMB)" <TurnquistM@michigan.gov<mailto:TurnquistM@michigan.gov>>, "Brownlee, Jeff (DTMB)" <BrownleeJ@michigan.gov<mailto:BrownleeJ@michigan.gov>>  
Cc: "Knapp, Kathy (DTMB)" <knappk1@michigan.gov<mailto:knappk1@michigan.gov>>, "Gonzalez, Tonyia (DTMB)" <GonzalezT1@michigan.gov<mailto:GonzalezT1@michigan.gov>>, "Fortino, Diane (DTMB)" <FortinoD@michigan.gov<mailto:FortinoD@michigan.gov>>  
Subject: FOIA Request From the Detroit Free Press Re: Flint Water

See FOIA request below.  
Pam 2/5/2016

From: Dolan, Matthew [mailto:msdolan@freepress.com]  
Sent: Thursday, February 04, 2016 4:49 PM  
To: DTMB <dmb@michigan.gov<mailto:dmb@michigan.gov>><mailto:dmb@michigan.gov>>  
Subject: FOIA request from the Detroit Free Press, RE: Flint water

Request for Public Record

To: FOIA Coordinators via email

I am a person as defined under Michigan FOIA. Please accept this correspondence as a request pursuant to the Michigan Freedom of Information Act (FOIA) Michigan Compiled Laws §15.231 to §15.246 et seq., the Michigan Constitution and common law, and the U.S. Constitution, for certain public documents hereinafter specified.

Date of Request: 2/4/16 Time: 4:40 p.m. via email  
Person Requesting Record: Matthew Dolan Phone: 313-223-4743  
Mailing address: Detroit Free Press

160 W. Fort Street

Detroit, MI 48226

Email Address: [msdolan@freepress.com](mailto:msdolan@freepress.com)<mailto:msdolan@freepress.com><mailto:msdolan@freepress.com> Fax: n/a

Delivery Specifications:

Please select the quickest form to be able to view the documents:

- Email: to requestor at the email address above if possible, and if not please mail to the address above.
  - In-office Inspection: Please contact me with an acceptable contact, time, and date when I may appear for inspection and possible scanning of documents.
  - Pick- up: Please contact me with an acceptable contact, time, and date when I may pick up the documents.
- Auditor or Attorney: \_\_\_\_\_ Contact: \_\_\_\_\_

Media Specification: Paper Copies or Email attachment less than 20 MB, CD-ROM or DVD, unless certain records are not available in computer format, in which case response by fax or in-person viewing is preferred  
 Records requested: The records and documents I am requesting are all those relating to:

Copies of the documents, including but not limited to emails already requested by and provided to Progress Michigan or those associated with the organization related to any and all discussion of Flint's water supply, including but not limited to contaminant such as lead and copper in the water as well as any and all discussion of Legionnaire's disease in Genesee County, Mich.

For the purposes of this request, the term "you" or "your" refers to public body generating or maintaining the public records requested in this request, and to which this request is directed, whether that be an agency, municipality, office, county, or any other entity subject to disclosure under this act; the term "records" refers to all documents, regardless of physical form (including without limitation papers, reports, notes of telephone conversations, telephone call messages, studies, proposals, indices, letters, messages, faxes, minutes, logs, journal entries, calendars, and computer-based or computer-generated materials including e-mail, or any other documentation of any kind of any and all kind) of or belonging to any department, agency, service area, board or other subdivision of the public body. "Records" shall include drafts of records to the extent permitted by law; The term "email" includes any electronic message and any attachment to any such message, and specifically includes emails sent or received by an officer, agent, or employee using an email address other than that person's official government issued email address if sent or received while on duty, using a government computer, in a government building, sent or received using a government contact list, or other using any other government resource.

Michigan law requires you to respond to this request not more than five (5) days from your receipt of this request, but you are asked to expedite this request if possible. If this request is sent by fax or email, the time to comply begins the day after the faxed request is sent to you. If your agency does not maintain these public records, please let my designated auditor know who does, and include the proper custodian's name and address. If this fax request does not go directly to the office of the FOIA coordinator, you must deliver it there immediately. If you deny any part of this request, please indicate the name and position of the person too who an appeal should be directed prior to instituting suit, so that needless litigation in which costs, damages, and attorney fee may be taxed against you might be avoided.

Take notice of the penalties and consequences for failure to comply with this request: Willful violation of FOIA by refusing to disclose or delaying in disclosing or providing copies of a public record, may result in the court awarding in addition to any actual or compensatory damages, award punitive damages in the amount of \$500 to the person seeking the right to inspect or receive a copy of a public record. Reasonable attorneys' fees, costs, and disbursements" will be awarded to any person who prevails in an action to compel disclosure under MCLA § 15.240. If the requesting person only prevails in part, "the court may, in its discretion, award all or an appropriate portion of reasonable attorneys' fees, costs, and disbursements.

Because of the civic educational purpose of this request, I request a fee waiver and ask that you determine that a waiver or reduction of the fee is in the public interest because furnishing copies of the public record can be considered as primarily benefiting the general public." MCLA § 15.234(I)

I agree to pay any reasonable search, copying, and postage fees of not more than \$2.00. If the cost would be greater than this amount, Please immediately contact me by telephone or email if you anticipate that the costs will exceed this amount, so as not to cause delay in the prompt disclosure of the records requested. I may appear in person to inspect the documents on scan them using my portable equipment. Please provide a receipt indicating the charges for each document. The Michigan FOIA law provides that, "A fee shall not be charged for the cost of search, examination, review, and the deletion and separation of exempt from nonexempt information as provided in section 14 unless failure to charge a fee would result in unreasonably high costs to the public body because of the nature of the request in the particular instance, and the public body specifically identifies the nature of these unreasonably high costs. MCLA § 15.234(3).

If the documents I have requested are not subject to disclosure in their entirety, I request that you release all nonexempt portions of the documents that may be segregated and all parts of the documents that can be rendered disclosable by redaction without fee. If you determine that any of the requested documents fall within a statutory exemption, I request that you exercise your discretion to disclose those materials because of the overriding public concern about the improper use of government email systems and resources to further political agendas. As to any portion of the documents that you withhold, please state with specificity the legal and factual basis for withholding such portion. To the extent that you are unable to produce copies of or otherwise make available all records requested within the time frame



provided, please notify my auditor in writing and provide me with those records that are available within the prescribed time frame and the remainder of the records on a "rolling" basis as they become available for production.

I appreciate your anticipated prompt cooperation and will expect your response within 5 days, as required by the act. If you need further explanation of the details or the nature or scope of this request, please feel free to call me or my designated auditor or attorney specified above using the contact information provided.

Matthew Dolan  
Detroit Free Press  
313-223-4743 (work)  
248-227-0497 (cell)  
[msdolan@freepress.com](mailto:msdolan@freepress.com)<mailto:msdolan@freepress.com><mailto:msdolan@freepress.com>  
@matthewsdolan

<< File: ATT00001.htm >>

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**From:** Spaniolo, Natalie (DTMB)  
**Sent:** Tuesday, February 09, 2016 7:27 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Flint Emergency Purchasing Procedures

Done...thank you.

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 08, 2016 5:34 PM  
**To:** Spaniolo, Natalie (DTMB) <[spaniolon@michigan.gov](mailto:spaniolon@michigan.gov)>  
**Subject:** FW: Flint Emergency Purchasing Procedures

Natalie,  
I know you were out. Just making sure you've seen this. Please make sure Chris Christensen knows the contact info for your team.  
Thanks,  
Jeff

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 2, 2016 2:34 PM  
**To:** Arbulu, Agustin (MDCR) <[ArbuluA@michigan.gov](mailto:ArbuluA@michigan.gov)>; Arwood, Steve (LARA) <[ArwoodS@michigan.gov](mailto:ArwoodS@michigan.gov)>; Clover Adams, Jamie (MDARD) <[CloveradamsJ@michigan.gov](mailto:CloveradamsJ@michigan.gov)>; Creagh, Keith (DEQ) <[creaghk@michigan.gov](mailto:creaghk@michigan.gov)>; Etue, Kriste (MSP) <[EtueK@michigan.gov](mailto:EtueK@michigan.gov)>; Johnson, Ruth (MDOS) <[JohnsonR43@michigan.gov](mailto:JohnsonR43@michigan.gov)>; Khouri, Nick (TREASURY) <[KhouriN@michigan.gov](mailto:KhouriN@michigan.gov)>; Lyon, Nick (DHHS) <[LyonN2@michigan.gov](mailto:LyonN2@michigan.gov)>; Maj. Gen. Gregory Vadnais DMVA <[gregory.i.vadnais.mil@mail.mil](mailto:gregory.i.vadnais.mil@mail.mil)>; McPharlin, Pat (DIFS) <[McPharlinP@michigan.gov](mailto:McPharlinP@michigan.gov)>; Moritz, William (DNR) <[MoritzW@michigan.gov](mailto:MoritzW@michigan.gov)>; Roberts, John (DTMB) <[RobertsJ9@michigan.gov](mailto:RobertsJ9@michigan.gov)>; Schuette, Bill (AG) <[SchuetteB@michigan.gov](mailto:SchuetteB@michigan.gov)>; Steudle, Kirk (MDOT) <[SteudleK@michigan.gov](mailto:SteudleK@michigan.gov)>; Washington, Heidi E. (MDOC) <[WashingtonM6@michigan.gov](mailto:WashingtonM6@michigan.gov)>; Whiston, Brian (MDE) <[WhistonB@michigan.gov](mailto:WhistonB@michigan.gov)>; Winters, Jan (MCSC) <[WintersJ@michigan.gov](mailto:WintersJ@michigan.gov)>; Zimmer, Mike (LARA) <[zimmerm@michigan.gov](mailto:zimmerm@michigan.gov)>; Allan, Jon (DEQ) <[AllanJ@michigan.gov](mailto:AllanJ@michigan.gov)>; Barnes, Jeff (DMVA) <[barnesj7@michigan.gov](mailto:barnesj7@michigan.gov)>; Bowen, Scott (MSL) <[bowens1@michigan.gov](mailto:bowens1@michigan.gov)>; Brader, Valerie (LARA) <[braderv@michigan.gov](mailto:braderv@michigan.gov)>; Comai, Stephanie (TIA) <[ComaiS1@michigan.gov](mailto:ComaiS1@michigan.gov)>; Deloney, Andrew (LARA) <[DeloneyA@michigan.gov](mailto:DeloneyA@michigan.gov)>; Elsenheimer, Kevin (MSHDA) <[ElsenheimerK@michigan.gov](mailto:ElsenheimerK@michigan.gov)>; Goei, Bing (LARA) <[GoeiB@michigan.gov](mailto:GoeiB@michigan.gov)>; Hawks, Orlene (DTMB) <[HawksO@michigan.gov](mailto:HawksO@michigan.gov)>; Kalm, Rick (MGCB) <[KalmR@michigan.gov](mailto:KalmR@michigan.gov)>; Ringler, Doug (OAG) <[dringler@audgen.michigan.gov](mailto:dringler@audgen.michigan.gov)>; Waalkes, Marie (DTMB) <[WaaikesM1@michigan.gov](mailto:WaaikesM1@michigan.gov)>  
**Subject:** Flint Emergency Purchasing Procedures

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee  
Ofc: 517-284-7003  
Cell: 517-930-3472

---

**From:** Troub, Shelby (DTMB)  
**Sent:** Tuesday, February 09, 2016 8:24 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Contractual Services for City of Flint Schools

Hi Jeff,

All emergency purchases go in the special items section on the F&C Agenda.

**Shelby Troub**  
**Secretary of State Administrative Board**  
**Department of Technology, Management and Budget**  
**1<sup>st</sup> Floor, Constitution Hall**  
**(517) 284-7028**  
[troubst1@michigan.gov](mailto:troubst1@michigan.gov)  
**WEBSITE – [www.michigan.gov/adboard](http://www.michigan.gov/adboard)**



---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 08, 2016 5:16 PM  
**To:** Troub, Shelby (DTMB) <[TroubS1@michigan.gov](mailto:TroubS1@michigan.gov)>  
**Cc:** Redford, James (GOV) <[RedfordJ@michigan.gov](mailto:RedfordJ@michigan.gov)>  
**Subject:** FW: Contractual Services for City of Flint Schools

Shelby,

Let's make sure we have a method for capturing the after-the-fact Ad Board notifications that are likely to continue for emergency Flint-related purchases for some time. Thank you.

Thanks,  
Jeff

---

**From:** Burton, Diane (LARA)  
**Sent:** Monday, February 8, 2016 4:58 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Cc:** Zimmer, Mike (LARA) <[zimmerm@michigan.gov](mailto:zimmerm@michigan.gov)>; Towne, Karen (LARA) <[TowneK2@michigan.gov](mailto:TowneK2@michigan.gov)>; Droste, LeAnn (LARA) <[drostel1@michigan.gov](mailto:drostel1@michigan.gov)>  
**Subject:** Contractual Services for City of Flint Schools

Attached please find an electronic copy of the signed memo to the State Administrative Board from Director Mike Zimmer concerning contracted plumbing services for Flint Schools.

Diane F. Burton

*Senior Executive Management Assistant to*  
*Director Mike Zimmer*  
Michigan Dept. of Licensing and Regulatory Affairs  
611 W. Ottawa St.  
PO Box 30004  
Lansing, MI 48909  
Phone: (517) 241-7124  
Fax: (517) 373-2129



---

**From:** Droste, LeAnn (LARA)  
**Sent:** Tuesday, February 09, 2016 11:04 AM  
**To:** Troub, Shelby (DTMB)  
**Cc:** Brownlee, Jeff (DTMB); Towne, Karen (LARA); Zimmer, Mike (LARA)  
**Subject:** RE: Contractual Services for City of Flint Schools

Hi Shelby ---

The emergency report letter you attached to your email below references Ad Guide Procedure 0620.02, which is titled "New Procedural Resolutions and Amended Resolutions." I am not sure how an emergency purchase relates to this section. I believe the correct Ad Guide Procedure that should be referenced is 0620.01.

Ad Guide Procedure 0510.38 requires notification to the State Ad Board in accordance with Ad Guide Procedure 0620.02, which again I believe should be 0620.01. The following is language included on page 5 of Ad Guide Procedure 0620.01, which is consistent with the original memo LARA submitted to you with the Contract abstract:

- An emergency purchase (see Ad Guide Procedure 0510.38) is defined as a purchase in an emergency situation which has a value in excess of a department's delegated purchasing authority and is made to protect the immediate health, safety, or welfare of individuals or property. Due to the immediate nature of an emergency purchase, approval by the State Administrative Board is not required, but requires the Agency to report in writing to the Ad Board within 45 days of execution. Emergency purchase reports are placed in the Special Items Section of the F&C Agenda.

I was not aware of an "emergency report letter" template that departments are to use in these situations and therefore, submitted the memo from Mike Zimmer to the State Administrative Board. I believe all the information you are requesting in the emergency report letter is included in the memo.

I hope this helps explain the process LARA used.

Thanks!

LeAnn Droste  
Acting Director  
Finance and Administrative Services  
Department of Licensing & Regulatory Affairs  
517-373-3847  
517-373-2927 fax

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---

**From:** Troub, Shelby (DTMB)  
**Sent:** Tuesday, February 09, 2016 8:40 AM  
**To:** Droste, LeAnn (LARA); Towne, Karen (LARA); Zimmer, Mike (LARA)

**Cc:** Brownlee, Jeff (DTMB)

**Subject:** RE: Contractual Services for City of Flint Schools

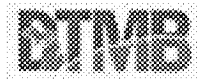
LeAnn,

Can you please prepare an emergency report letter and get an authorized signature for the memo you sent. Please let me know if you have any questions.

**Shelby Troub**  
**Secretary of State Administrative Board**  
**Department of Technology, Management and Budget**  
**1<sup>st</sup> Floor, Constitution Hall**  
**(517) 284-7028**

[troubel@michigan.gov](mailto:troubel@michigan.gov)

**WEBSITE** – [www.michigan.gov/adboard](http://www.michigan.gov/adboard)



---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 08, 2016 5:16 PM  
**To:** Troub, Shelby (DTMB) <[TroubS1@michigan.gov](mailto:TroubS1@michigan.gov)>  
**Cc:** Redford, James (GOV) <[RedfordJ@michigan.gov](mailto:RedfordJ@michigan.gov)>  
**Subject:** FW: Contractual Services for City of Flint Schools

Shelby,  
Let's make sure we have a method for capturing the after-the-fact Ad Board notifications that are likely to continue for emergency Flint-related purchases for some time. Thank you.

Thanks,  
Jeff

---

**From:** Burton, Diane (LARA)  
**Sent:** Monday, February 8, 2016 4:58 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Cc:** Zimmer, Mike (LARA) <[zimmerm@michigan.gov](mailto:zimmerm@michigan.gov)>; Towne, Karen (LARA) <[TowneK2@michigan.gov](mailto:TowneK2@michigan.gov)>; Droste, LeAnn (LARA) <[droste1@michigan.gov](mailto:droste1@michigan.gov)>  
**Subject:** Contractual Services for City of Flint Schools

Attached please find an electronic copy of the signed memo to the State Administrative Board from Director Mike Zimmer concerning contracted plumbing services for Flint Schools.

Diane F. Burton  
*Senior Executive Management Assistant to*  
*Director Mike Zimmer*  
Michigan Dept. of Licensing and Regulatory Affairs  
611 W. Ottawa St.  
PO Box 30004  
Lansing, MI 48909

Phone: (517) 241-7124

Fax: (517) 373-2129



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**From:** Kelly, Liam <liamkelly@kpmg.com>  
**Sent:** Tuesday, February 09, 2016 1:50 PM  
**To:** Pavona, Joseph (GOV); Allan, Jon (DEQ); Brownlee, Jeff (DTMB)  
**Cc:** Tester, Iain (US/Austin/CF)  
**Subject:** FW: Democrats introduce water P3 bill

Just in case you didn't see this gents.

I hope you are all well  
Kind regards  
Liam

---

**From:** Seleznyov, Alexander A  
**Sent:** Tuesday, February 09, 2016 9:16 AM  
**To:** Crooks, Edwin W; Kelly, Liam; Tester, Iain (US/Austin/CF); Shelat, Raj; Lee, Gareth E; McGarry, Benjamin  
**Subject:** Democrats introduce water P3 bill

US Senators Robert Menendez, Cory Booker and Congressman Bill Pascrell are to introduce legislation in Congress to address water infrastructure through P3s. The purpose of the Sustainable Water Infrastructure Investment Act of 2016 is to stimulate private-sector investment to fund large-scale repairs and upgrades to water systems. The bill modifies the federal tax code to remove caps on the issuances of government private activity bonds (PABs) for water and wastewater projects.

Currently, annual volume cap exemptions exist for PAB financing of airports, seaports and certain intercity rail projects. Menendez and Pascrell have introduced the Sustainable Water Infrastructure Act in each of the past four Congresses. They agreed to reintroduce the measure, now with Booker as a cosponsor, amid increased attention on water infrastructure following a public health crisis in Flint, Michigan.

Menendez, Booker and Pascrell represent New Jersey and launched the bill at Suez's (United Water) facility in Hackensack. In support of the legislation Suez North America executive Robert Iacullo said "Lifting the state volume cap on private activity bonds that fund water and wastewater projects would open the door for more public-private partnerships and inject significant private capital in infrastructure markets across the country." Stephen Sandherr, chief executive officer of the Associated General Contractors of America said this legislation could unlock billions in private money. - See more at: <http://www.p3bulletin.com/news/view/97428#sthash.mNMBPzKI.dpuf>

**Alex Seleznyov**  
Deal Advisory – Infrastructure

KPMG LLP | 1801 K St NW | Washington, DC 20006  
Ph: 703-286-6036 Cell: 202-247-7910 email: [aseleznyov@kpmg.com](mailto:aseleznyov@kpmg.com)

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may be unlawful. When addressed to our clients any opinions or advice contained in this email are subject to the terms and conditions expressed in the governing KPMG client engagement letter.

\*\*\*\*\*

Message

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**From:** Cook, Rebecca (DTMB) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=2C072214BC9F472783DB4BB8C06DF01C-COOK REBECCA]  
**Sent:** 2/11/2016 12:44:02 PM  
**To:** Rigg, Steve (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=18d130274b1949c7a252fe3694a37fcb-Rigg Stephen]  
**CC:** Brownlee, Jeff (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bae5bd3c6f244006a9a672e3df1f299c-Brownlee Jeff]  
**Subject:** FW: Flint Emergency Purchasing Procedures - GFS

Steve

Are there PO releases against the Gordon's contract, or do you think Jeanette is referring to stand alone transactions? FYI in case you need to review credit limits and remaining contract balance.

Rebecca

**From:** Christensen, Chris (DTMB)  
**Sent:** Wednesday, February 10, 2016 7:37 PM  
**To:** Doll, Jeanette (DTMB) <dollj@michigan.gov>; Spaniolo, Natalie (DTMB) <spaniolon@michigan.gov>  
**Cc:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Subject:** Re: Flint Emergency Purchasing Procedures

Jeanette,

This means that EVERY purchase we make not just P-cards Natalie needs to be aware of.

The caveat in the email I think is very important here. If it's under \$2,500 and you are aware of an existing contract you can proceed NEVERTHELESS you must inform Natalie as well.

I have looped in Natalie for further clarification.

Perhaps we could come up with a solution where the daily updates have the information about what's been purchased and I could send the information to Natalie at that time, Natalie what do you think of that idea?

Thanks Chris

On Feb 10, 2016, at 7:09 PM, Doll, Jeanette (DTMB) <[dolli@michigan.gov](mailto:dolli@michigan.gov)> wrote:

Chris –

Does this mean that every purchase we make using the P-card we need to call Natalie before proceeding? Gordon's Food Service, Grainger, Start Truck Rental, etc.?

Jeanette

**From:** Christensen, Chris (DTMB)

**Sent:** Tuesday, February 9, 2016 6:50 PM

**To:** Doll, Jeanette (DTMB) <[dolli@michigan.gov](mailto:dolli@michigan.gov)>; McKee, Ryan (DTMB) <[mckeer1@michigan.gov](mailto:mckeer1@michigan.gov)>; Rakowski, Rock (DTMB) <[RakowskiJ@michigan.gov](mailto:RakowskiJ@michigan.gov)>; Pratt, Jeff (DTMB) <[prattj@michigan.gov](mailto:prattj@michigan.gov)>; MSP-EOC-MDTMB <[MSP-EOC-MDTMB@michigan.gov](mailto:MSP-EOC-MDTMB@michigan.gov)>

**Cc:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>

**Subject:** FW: Flint Emergency Purchasing Procedures

All,

I am just finishing a meeting with Jeff Brownlee, Natalie Spaniolo, and Rebecca Cook. They have indicated that all purchases need to go through Natalie Spaniolo (cell phone is [REDACTED]). They want us to now call Natalie for things that we need to purchase with DTMB funds. Natalie's group is actually processing the purchase orders and helping track the purchases, so it makes sense to involve her upfront. One caveat is if a purchase is under \$2,500; you can use known existing state contracts and then make sure you let Natalie know what you have purchased.

Either Natalie or Rebecca (cell phone is [REDACTED]) can help research whether there is an existing state contract.

Please let them know if you'd like an existing state vendor to expedite requests, some vendors have provided special 24/7 contacts, like Home Depot and Grainger.

We have to follow the same procedures that Captain Kelenske and the Governor's office have laid out in the memo above.

Please reply to this email so that I know you have read and understand the direction.

Thanks,

Chris Christensen

Director of Infrastructure Protection

Office: (517) 241-2188

Cell: (517) 243-1647

[Christensenc4@michigan.gov](mailto:Christensenc4@michigan.gov)

<image001.png>



Message

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**From:** Cook, Rebecca (DTMB) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=2C072214BC9F472783DB4BB8C06DF01C-COOK REBECCA]  
**Sent:** 2/11/2016 12:52:39 PM  
**To:** Brownlee, Jeff (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bae5bd3c6f244006a9a672e3df1f299c-Brownlee Jeff]  
**Subject:** FW: Flint Emergency Purchasing Procedures

Jeff

Unsure whether they are having the same conversation. Chris may be asking assuming Natalie's group is going to be the contact for agency tracking and reporting. Unsure what Natalie's understanding of her new tasks is. Could you please enter this conversation and clarify?

Thank you.

Rebecca

**From:** Spaniolo, Natalie (DTMB)  
**Sent:** Thursday, February 11, 2016 9:39 AM  
**To:** Christensen, Chris (DTMB) <christensenc4@michigan.gov>  
**Cc:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Subject:** Re: Flint Emergency Purchasing Procedures

Chris

As long as you are reporting up your chain - we don't a separate report.

One exception is for PCard transactions that we need to make coding changes.

Natalie

Sent from my iPhone

On Feb 11, 2016, at 9:11 AM, Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)> wrote:

Natalie,

I wanted to clarify something with you. I was under the impression that you still needed to know about ALL of the purchases that we do in the SEOC.

Is that not the case? I want to give my team a clear expectation.

Thanks Chris

On Feb 11, 2016, at 9:00 AM, Pratt, Jeff (DTMB) <[prattj@michigan.gov](mailto:prattj@michigan.gov)> wrote:

Confused, what I am missing?

Natalie said

“Even if there is not a contract and it is under \$2500 we don't need to know about those purchases unless it is a service”

Thanks,

Jeff

**From:** Christensen, Chris (DTMB)

**Sent:** Thursday, February 11, 2016 8:40 AM

**To:** Pratt, Jeff (DTMB) <[prattj@michigan.gov](mailto:prattj@michigan.gov)>

**Subject:** Re: Flint Emergency Purchasing Procedures

The one piece I think that you're missing is that even if you spend under \$2500 you still need to notify Natalie and her team and let her know what was spent.

Thanks Chris

On Feb 11, 2016, at 8:36 AM, Pratt, Jeff (DTMB) <[prattj@michigan.gov](mailto:prattj@michigan.gov)> wrote:

It does. Basically Less than \$2500, unless it is for service related ok to purchase without notification. Anything over that amount needs to involve the Purchasing folks.

Thanks,

Jeff

**From:** Christensen, Chris (DTMB)  
**Sent:** Thursday, February 11, 2016 8:34 AM  
**To:** Pratt, Jeff (DTMB) <[prattj@michigan.gov](mailto:prattj@michigan.gov)>  
**Subject:** Re: Flint Emergency Purchasing Procedures

Yes, I think I sent this out last night as well. Does that make sense to you though? I don't think it's very clear.

Thanks Chris

On Feb 11, 2016, at 8:28 AM, Pratt, Jeff (DTMB) <[prattj@michigan.gov](mailto:prattj@michigan.gov)> wrote:

Wanted to make sure you were aware of this. Don't like making assumptions.

Thanks,

Jeff

**From:** Doll, Jeanette (DTMB)  
**Sent:** Thursday, February 11, 2016 7:53 AM  
**To:** McKee, Ryan (DTMB) <[mckeer1@michigan.gov](mailto:mckeer1@michigan.gov)>; Rakowski, Rock (DTMB) <[RakowskiJ@michigan.gov](mailto:RakowskiJ@michigan.gov)>



**Cc:** Pratt, Jeff (DTMB) <[prattj@michigan.gov](mailto:prattj@michigan.gov)>

**Subject:** FW: Flint Emergency Purchasing Procedures

FYI – clarification on spending

**From:** Spaniolo, Natalie (DTMB)

**Sent:** Wednesday, February 10, 2016 7:45 PM

**Subject:** Re: Flint Emergency Purchasing Procedures

Hi Chris-

Even if there is not a contract and it is under \$2500 we don't need to know about those purchases unless it is a service - if you put a service on a Pcard then I need to know that so it can be properly reported.

Once you get over \$2500 then you are in the area where under normal circumstances those purchases would require a purchase order prior to purchase - but what you are supporting are not normal circumstances. For the purchases over \$2500 (and not on contract) - please keep us in the loop and if at all possible contact me or Lacey prior to the purchase and we can try to assist.

Thanks,

Natalie

517 373-3696



Sent from my iPad

On Feb 10, 2016, at 7:37 PM, Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)> wrote:

Jeanette,

This means that EVERY purchase we make not just P-cards Natalie needs to be aware of.

The caveat in the email I think is very important here. If it's under \$2,500 and you are aware of an existing contract you can proceed NEVERTHELESS you must inform Natalie as well.

I have looped in Natalie for further clarification.

Perhaps we could come up with a solution where the daily updates have the information about what's been purchased and I could send the information to Natalie at that time, Natalie what do you think of that idea?

Thanks Chris

On Feb 10, 2016, at 7:09 PM, Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)> wrote:

Chris –

Does this mean that every purchase we make using the P-card we need to call Natalie before proceeding? Gordon's Food Service, Grainger, Start Truck Rental, etc.?

Jeanette

**From:** Christensen, Chris (DTMB)

**Sent:** Tuesday, February 9, 2016 6:50 PM

**To:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; McKee, Ryan (DTMB) <[mckeer1@michigan.gov](mailto:mckeer1@michigan.gov)>; Rakowski, Rock (DTMB) <[RakowskiJ@michigan.gov](mailto:RakowskiJ@michigan.gov)>; Pratt, Jeff (DTMB) <[prattj@michigan.gov](mailto:prattj@michigan.gov)>; MSP-EOC-MDTMB <[MSP-EOC-MDTMB@michigan.gov](mailto:MSP-EOC-MDTMB@michigan.gov)>

**Cc:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>

**Subject:** FW: Flint Emergency Purchasing Procedures

All,

I am just finishing a meeting with Jeff Brownlee, Natalie Spaniolo, and Rebecca Cook. They have indicated that all purchases need to go through Natalie Spaniolo (cell phone is [REDACTED]). They want us to now call Natalie for things that we need to purchase with DTMB funds. Natalie's group is actually processing the purchase orders and helping track the

purchases, so it makes sense to involve her upfront. One caveat is if a purchase is under \$2,500; you can use known existing state contracts and then make sure you let Natalie know what you have purchased.

Either Natalie or Rebecca (cell phone is [REDACTED]) can help research whether there is an existing state contract.

Please let them know if you'd like an existing state vendor to expedite requests, some vendors have provided special 24/7 contacts, like Home Depot and Grainger.

We have to follow the same procedures that Captain Kelenske and the Governor's office have laid out in the memo above.

Please reply to this email so that I know you have read and understand the direction.

Thanks,

Chris Christensen

Director of Infrastructure Protection

Office: (517) 241-2188

Cell: (517) 243-1647

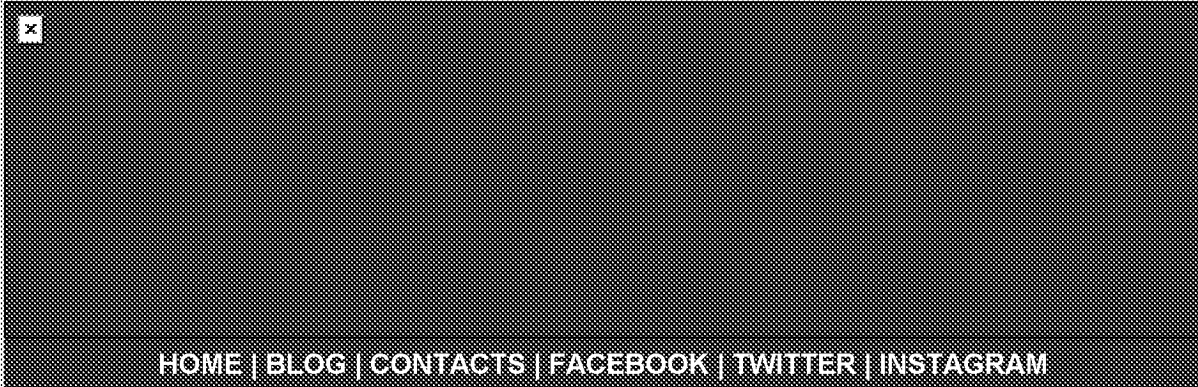
[Christensenc4@michigan.gov](mailto:Christensenc4@michigan.gov)

<image001.png>

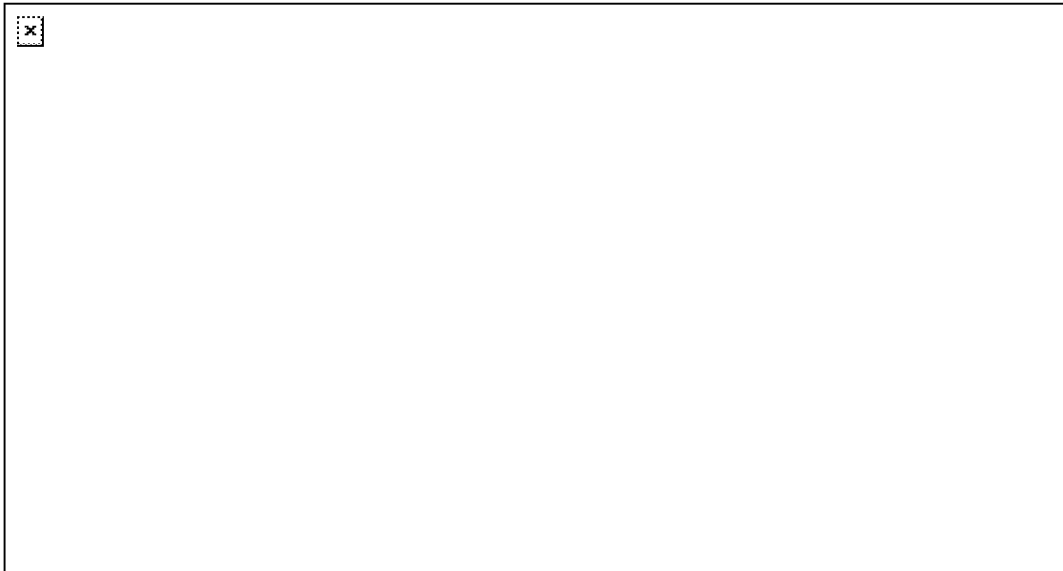


---

**From:** Governor's Office <governorsoffice@govsubscriptions.michigan.gov>  
**Sent:** Thursday, February 11, 2016 5:33 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** What this year's budget means for Michigan...



## VIDEO: What Governor Snyder's FY17 budget means for Michigan



---

Gov. Rick Snyder's FY 2017 budget calls for critical investments for the Flint water crisis, statewide infrastructure and the Detroit Public Schools. The governor's recommendation also addresses the skyrocketing costs of specialty medications that Michigan residents depend on for better health outcomes.

This budget also stays committed to the Governor's core statewide priorities of education, talent and economic development, health and human services, and public safety.

The proposed FY 2017 budget makes key investments to strengthen the state for all of

Michigan's families. Click here to learn more about the top 6 takeaways from the Governor's FY 2017 state budget.



### Click a tweet to tweet it out:

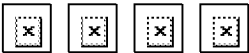


The #MiBudget @OneToughNerd proposed yesterday makes key investments to strengthen Michigan for all families --> [www.mi.gov/MiBudget](http://www.mi.gov/MiBudget)

--> @OneToughNerd's #MiBudget includes \$72 million a year for Detroit Public Schools. It is time to act now --> [www.mi.gov/MiBudget](http://www.mi.gov/MiBudget)

--> @onetoughnerd's significant investment in #Flint families is the right thing to do. #FlintFWD #MiBudget [www.mi.gov/MiBudget](http://www.mi.gov/MiBudget)

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---

This email was sent to brownleej@michigan.gov on behalf of: The Executive Office of the Governor · 111 South Capitol Avenue · Lansing, MI 48909 · 517-335-7358

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, February 11, 2016 6:25 PM  
**To:** Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB)  
**Subject:** FW: Inquiry from National TV/Radio Newshour Democracy Now!

**Importance:** High

FYI

---

**From:** Christensen, Chris (DTMB)  
**Sent:** Thursday, February 11, 2016 4:38 PM  
**To:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Buhs, Caleb (DTMB) <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>  
**Subject:** FW: Inquiry from National TV/Radio Newshour Democracy Now!  
**Importance:** High

This request may need to go through the SEOC. Let me loop in Jeanette and have her ask captain

Chris Christensen  
Director of Infrastructure Protection  
Office: (517) 241-2188  
Cell: (517) 243-1647  
[Christensenc4@michigan.gov](mailto:Christensenc4@michigan.gov)



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---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, February 11, 2016 4:22 PM  
**To:** Buhs, Caleb (DTMB) <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>  
**Subject:** FW: Inquiry from National TV/Radio Newshour Democracy Now!  
**Importance:** High

Caleb – our buyer has been contacted by the media. Please advise what you may need from us as you reach back out to them.

Unsure whether the SEOC may expect to coordinate the response, instead of our office.

Rebecca

---

**From:** Rigg, Steve (DTMB)  
**Sent:** Thursday, February 11, 2016 3:42 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** FW: Inquiry from National TV/Radio Newshour Democracy Now!

This request will need to start with you. Let me know what I need to do.

***Steve Rigg***

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)



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---

**From:** Laura Gottesdiener [<mailto:laura@democracynow.org>]  
**Sent:** Thursday, February 11, 2016 3:37 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** Inquiry from National TV/Radio Newshour Democracy Now!

Dear Steve Rigg,

My name is Laura Gottesdiener, and I'm a reporter with the national TV/Radio newshour Democracy Now! I have some questions about the bottled water purchases by the state of Michigan, and I was referred to you and your office by the governor's office.

Specifically, I'm seeking information about bottled water contracts from the \$15.5 million appropriated for the Michigan Department of Health and Human Resources for field operations, nutrition support and the purchase of bottled water and filters for Flint.

Who are the primary contractors that the state is purchasing bottled water from, and at what rates? Can you please provide me with (or point me in the direction of) copies of the 2015 and 2016 contracts of all bottled water purchases related to Flint, Michigan?

You can reach me at 646-217-7223.

Gratefully,  
Laura Gottesdiener

--  
Laura Gottesdiener  
News Producer  
[Laura@DemocracyNow.Org](mailto:Laura@DemocracyNow.Org)  
Office: +1 646-217-7223  
Cell: +1 617-519-5659



---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, February 11, 2016 7:36 PM  
**To:** Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Rigg, Steve (DTMB)  
**Subject:** FW: Inquiry from National TV/Radio Newshour Democracy Now!

Unsure what JIC is.  
Looks like someone else will be handling this?

---

**From:** MSP-EOC-MDTMB  
**Sent:** Thursday, February 11, 2016 7:29 PM  
**To:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Buhs, Caleb (DTMB) <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>  
**Cc:** MSP-FOIAProject <[MSP-FOIAProject@michigan.gov](mailto:MSP-FOIAProject@michigan.gov)>  
**Subject:** FW: Inquiry from National TV/Radio Newshour Democracy Now!

Please see responses below.

Jeanette

---

**From:** MSP-SEOCPIO  
**Sent:** Thursday, February 11, 2016 7:23 PM  
**To:** JICManager; Bolger, Matt (MSP)  
**Cc:** MSP-EOC-MDTMB  
**Subject:** FW: Inquiry from National TV/Radio Newshour Democracy Now!

Insp and Ron-

Please advise on how you want to handle the below. The thought from those here is that this is a media inquiry and the JIC will address it. Please advise if something different is going to happen (i.e. refer them to FOIA)

Thanks  
K

State Emergency Operations Center  
Public Information Officer  
517-284-3882

---

**From:** Katarsky, Anthony (MSP)  
**Sent:** Thursday, February 11, 2016 7:19 PM  
**To:** MSP-SEOCPIO  
**Subject:** FW: Inquiry from National TV/Radio Newshour Democracy Now!

Please let me know if you would like to discuss...

---

**From:** Smith, Paul (GOV)  
**Sent:** Thursday, February 11, 2016 6:53 PM  
**To:** Katarsky, Anthony (MSP)  
**Cc:** Kelenske, Chris (MSP); Doll, Jeanette (DTMB)  
**Subject:** Re: Inquiry from National TV/Radio Newshour Democracy Now!

I think media inquiries should go to the JIC.

Sent from my iPad

On Feb 11, 2016, at 6:49 PM, Katarsky, Anthony (MSP) <[KatarskyA@michigan.gov](mailto:KatarskyA@michigan.gov)> wrote:

My response would be to have the requestor submit a FOIA request. Given our current stance with compiling documents for posting, do we want to make any adjustment or go the normal route?

---

**From:** Doll, Jeanette (DTMB)  
**Sent:** Thursday, February 11, 2016 6:15 PM  
**To:** Katarsky, Anthony (MSP)  
**Subject:** FW: Inquiry from National TV/Radio Newshour Democracy Now!  
**Importance:** High

Tony –  
How should DTMB respond to the note below? Should they be directed to the JIC?

Jeanette

---

**From:** Laura Gottesdiener [<mailto:laura@democracynow.org>]  
**Sent:** Thursday, February 11, 2016 3:37 PM  
**To:** Rigg, Steve (DTMB) <[Rigg5@michigan.gov](mailto:Rigg5@michigan.gov)>  
**Subject:** Inquiry from National TV/Radio Newshour Democracy Now!

Dear Steve Rigg,

My name is Laura Gottesdiener, and I'm a reporter with the national TV/Radio newshour Democracy Now!  
I have some questions about the bottled water purchases by the state of Michigan, and I was referred to you and your office by the governor's office.

Specifically, I'm seeking information about bottled water contracts from the \$15.5 million appropriated for the Michigan Department of Health and Human Resources for field operations, nutrition support and the purchase of bottled water and filters for Flint.

Who are the primary contractors that the state is purchasing bottled water from, and at what rates? Can you please provide me with (or point me in the direction of) copies of the 2015 and 2016 contracts of all bottled water purchases related to Flint, Michigan?

You can reach me at 646-217-7223.

Gratefully,  
Laura Gottesdiener

--  
Laura Gottesdiener  
News Producer  
[Laura@DemocracyNow.Org](mailto:Laura@DemocracyNow.Org)  
Office: +1 646-217-7223  
Cell: +1 617-519-5659

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, February 11, 2016 8:05 PM  
**To:** Brownlee, Jeff (DTMB); Spaniolo, Natalie (DTMB)  
**Cc:** Maynard, Sharon (DTMB)  
**Subject:** Flint - 24/7 contact numbers for staff and vendors  
**Attachments:** 24 7 contact numbers staff and vendors.xlsx

Jeff

In addition to the briefing document already sent on Sci Spec from Melissa, here are the 24/7 phone numbers I've accumulated to date for staff and vendors. Personal cell phones are noted. Saved to your Shared Flint response folder.

Thank you for you and Sharon backing me up while I'm out Fri-Mon.

Please let me know if you need anything else.

Rebecca Cook  
DTMB Procurement  
Commodities Division Director  
517-284-7008



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SEOC DTMB	Chris Christensen		Primary Contact
	Jeanette Doll		Primary Contact
	Ryan McKee		Back ups
	Jeff Pratt		Back ups
DTMB Printing Services	Kristen Hampton	 (May be a personal cell)	
DTMB Procurement	Jeff Brownlee		CPO
	Sharon Maynard		Sourcing Director
	Tom Falik		Services Division Director
	Bill Pemble		IT Division Director
	Rebecca Cook		Commodities Division Director
	Steve Rigg		MRO Buyer
	Melissa Sambiagio		Lab Supplies Buyer
	Sue Ciecwa		Medical Supplies Buyer
	Lymon Hunter		Security Guards Buyer
	Yvon Dufour		Heavy Equipment Purchase/Rental Buyer
	Will Camp		Translation Services Buyer
DHHS	Farah Hanley		

Contract #	Link	Vendor Name	Desc	Contact Name	Title	Phone	Email	Comments
071B4300126	<a href="#">View MiDeal Contract</a>	J&B Medical	Medical Supplies (some items for community blood testing events)	Loren Bennett	Dir. Of Gov't Affairs	734-748-0298		
				Julian Shaya	Exec. VP	248-505-1226		
				Daniel Gladys	Purchasing Mgr	248-346-4557		
				Chris Respondek	Customer Service Mgr	313-701-6652		
071B1300329	<a href="#">View MiDeal Contract</a>	Grainger	MRO, plumbing fixtures	Brent Zinn		313-701-5454		
071B2200178	<a href="#">View MiDeal Contract</a>	Home Depot	Bottled water, water filters & replacement cartridges, plumbing fixtures	David Khanuja		248-826-8907		
				LB Willis		734-245-6922		
071B3200150	<a href="#">View MiDeal Contract</a>	Linguistica	Translation Services	Francia Delgado		866-908-5744 x 1	<a href="mailto:francia@mylinguistica.com">francia@mylinguistica.com</a>	Hasn't provided a 24/7 number yet, request rush translations
				Miguel Tenorio		866-908-5744 x 1	<a href="mailto:miguel@mylinguistica.com">miguel@mylinguistica.com</a>	Hasn't provided a 24/7 number yet, request rush translations
071B9200238	<a href="#">View MiDeal Contract</a>	Scientific Specialties	Water sampling bottles	Eric Speaks		443-561-2215	<a href="mailto:eric@scispec.com">eric@scispec.com</a>	
				Sue Swik		none	<a href="mailto:Susan@scispec.com">Susan@scispec.com</a>	
071B1300087	<a href="#">View MiDeal Contract</a>	VWR	Lab and medical supplies, back up for water sampling bottles	Lewis McMillan		770-335-7925	<a href="mailto:lewis_mcmillan@vwr.com">lewis_mcmillan@vwr.com</a>	
				Matt Miles		856-304-3450	<a href="mailto:matthew_miles@vwr.com">matthew_miles@vwr.com</a>	
				Nina Cole		858-210-1543	<a href="mailto:nina_cole@vwr.com">nina_cole@vwr.com</a>	
				Andy Garrison		248-326-8514	<a href="mailto:andy_garrison@vwr.com">andy_garrison@vwr.com</a>	
				Adrian Scioli		484-343-8132	<a href="mailto:adrian_scioli@VWR.com">adrian_scioli@VWR.com</a>	
		DK Security	Security Guards	Kathryn Kendall		616-656-0123	<a href="mailto:kathrynkendall@dksecurity.com">kathrynkendall@dksecurity.com</a>	Unsure whether Jeff Pratt contacts other vendors when he needs a guard under emergency purchase or just DK. Beyond a 30 day EP timeframe, discuss whether to pull multiple quotes in future.
				Terry Reese		616-656-0123	<a href="mailto:terryreese@dksecurity.com">terryreese@dksecurity.com</a>	

---

**From:** Weise, Kevin (MSP)  
**Sent:** Tuesday, February 16, 2016 9:40 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** FW: 2/3  
**Attachments:** FW 3 (2).zip; FW 4.zip

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Sachs, Tori (GOV)  
Sent: Tuesday, February 09, 2016 7:37 PM  
To: Lord, Daniel (DNR); Weise, Kevin (MSP)  
Subject: 2/3

The last email was too big.

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DIVISION**



**The PQ Corporation**

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Silicates y Derivados, S.A.  
Phone: 011-52-55-5227-6801

**IN EUROPE**

PQ Europe  
Phone: 31-33-450-9030

**IN AUSTRALIA**

PQ Australia Pty. Ltd.  
Phone: 61-3-9708-9200

**IN TAIWAN**

PQ Silicates Ltd.  
Phone: 886-2-2383-0515

**Bulletin 37-3**

# **PQ® Soluble Silicates: For Protection of Water Systems From Corrosion**

## **INTRODUCTION**

Soluble silicates are economical, effective, and environmentally responsible chemicals which have been used for more than 70 years to protect metals from the corrosive effects of water.<sup>1</sup> They are classified as corrosion inhibitors because they can deposit protective films onto various metal surfaces, isolating the metal from any further corrosive attack, and because they raise water pH which can make it less corrosive to metals. Silicates do not contribute zinc or phosphorous to treated water.

Laboratory and field experience has shown that silicate corrosion inhibitors are effective in many different types of water. Protection is provided in both acidic and alkaline water. In harder water slightly more silicate is needed to achieve the same degree of corrosion inhibition, since some of the injected silica may react with hardness ions before it has a chance to bond onto metal surfaces

PQ® silicates have been successfully used for corrosion control in water supplies of municipalities, industrial plants, oil refineries, textile mills, private residences, apartment buildings, and office buildings. Their corrosion inhibition properties also make them key ingredients in such products as automobile antifreeze and laundry detergents.

## **WHAT ARE SOLUBLE SILICATES?**

PQ Corporation manufactures sodium and potassium silicates. These soluble silicates are produced by fusing high purity silica sand and sodium carbonate (or potassium carbonate) at temperatures of 1000 - 1500°C. The resulting product is an amorphous glass that can be dissolved in water to produce silicate solutions, sometimes referred to as "waterglass." The silica in a silicate solution is present as both monomeric and polymeric anionic species (Figure 1), that exist in equilibrium with each other.<sup>2</sup>

Ratio and silicate concentration are two important factors that influence what species are present in solution. At concentrations typical for corrosion control, the silica monomer predominates.<sup>3</sup>

The proportion of silica to alkali in a sodium silicate is expressed as the weight ratio  $\text{SiO}_2/\text{Na}_2\text{O}$ . It is one of the main characteristics that influences product properties and distinguishes one product from another.

PQ manufactures liquid sodium silicates which range in ratio from 1.60 to 3.22. Typically, 2.00 or 3.22 ratio sodium silicate solutions, containing 25 to 30%  $\text{SiO}_2$ , are used for municipal water treatment.

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Phone: 011-52-55-5227-6801

**IN EUROPE**

PQ Europe  
Phone: 31-33-450-9030

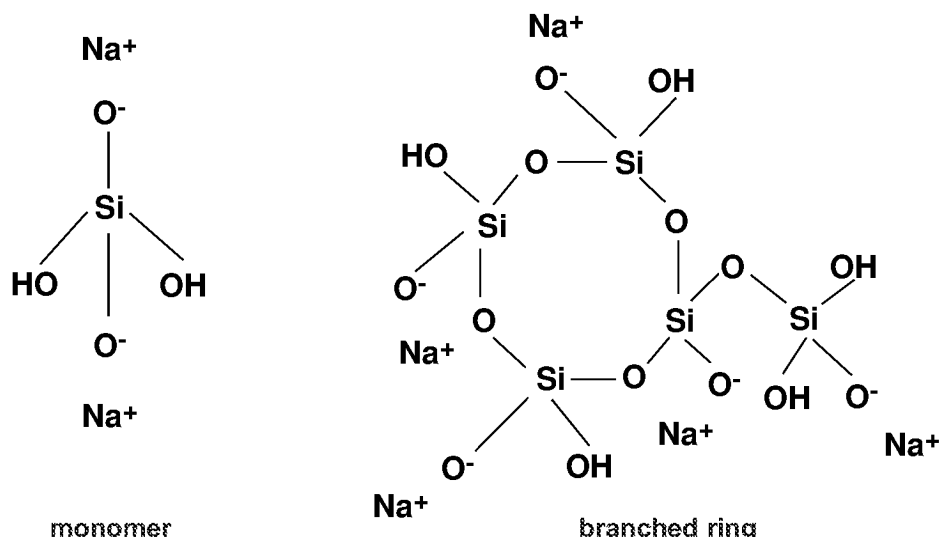
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Phone: 61-3-9708-9200

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PQ Silicates Ltd.  
Phone: 886-2-2383-0515

**FIGURE 1. TWO SILICA STRUCTURES FOUND IN  
SODIUM SILICATE SOLUTIONS**



**Terminology: Silica vs. Silicate**

The term "silica" refers to the compound silicon dioxide ( $\text{SiO}_2$ ). Water is typically analyzed for silica as part of normal water quality analysis procedures. Silica levels are usually reported as mg  $\text{SiO}_2/\text{L}$ .

"Silicate" is a generic term for compounds that contain silicon, oxygen, and one or more metals. They can be naturally occurring or synthetic. As an example, PQ's synthetic sodium silicate compounds can be represented by the generalized formula  $\text{Na}_2\text{O} \cdot x\text{SiO}_2$ , where "x" varies from 1.60 to 3.22 for commercial products.

Naturally occurring silicate minerals make up nearly 90% of the earth's crust.<sup>4</sup> Dissolved silica is a minor but ubiquitous constituent of the hydrosphere.<sup>5</sup>

Commercial soluble silicates have a higher degree of polymerized silica species than natural dissolved silica because of higher concentrations; however, when diluted they depolymerize to molecular species that are indistinguishable from natural dissolved silica.<sup>6</sup>

**PHYSIOLOGICAL AND ENVIRONMENTAL  
EFFECTS OF SODIUM SILICATE**

Sodium silicate adds silicate anions, together with sodium and hydroxyl ions, to water.

Silica is found to some extent in all natural waters and is believed to be ecologically harmless. The charged, polymeric nature of the silica found in synthetic silicate solutions is responsible for its reaction with metals and corrosion inhibition properties.

The sodium content of water will increase slightly with sodium silicate addition. This issue has been raised as a concern in some instances. At the highest dosages recommended for potable water treatment (24 mg  $\text{SiO}_2/\text{L}$ ), PQ's N® sodium silicate will contribute less than 5.6 mg Na/L to the water.



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Phone: 61-3-9708-9200

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Phone: 886-2-2383-0515

Furthermore, when using N silicate at normal maintenance dosages of 4-12 mg  $\text{SiO}_2/\text{L}$ , the sodium contribution is 0.9-2.8 mg  $\text{Na}/\text{L}$ , respectively. When other sodium silicates are used, the sodium contribution will be different depending on the weight ratio of  $\text{SiO}_2/\text{Na}_2\text{O}$ . If no sodium addition is tolerable, potassium silicates offer an alternative.

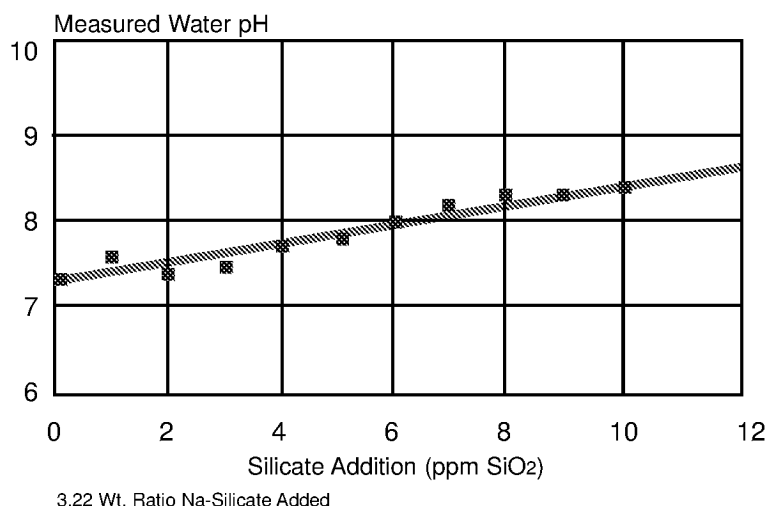
Neither sodium nor potassium silicate corrosion inhibitors contribute phosphorus or metals such as zinc to the ecosystem. These are concerns with other corrosion inhibitors, especially phosphorus-based types.

### pH EFFECTS

Sodium silicates are alkaline chemicals. Treating water at typical levels of 4-24 mg  $\text{SiO}_2/\text{L}$  may raise the water pH anywhere from 0.1 to 2.0 pH units or more. The actual pH increase will depend on overall water quality and silicate dosage. See Figure 2 for example. Increases in pH will generally help minimize corrosion and will provide a synergistic effect along with deposition of monomolecular silica film.

**FIGURE 2. pH RESPONSE WITH SILICATE ADDITION**

LAKE TAHOE WATER pH RESPONSE TO SODIUM SILICATE ADDITION



### APPROVALS FOR USE

The use of sodium silicates for the control of corrosion in municipal water systems is approved by the American Water Works Association and the American National Standards Institute (refer to ANSI/AWWA Standard B404). Sodium silicate also has Food and Drug Administration (FDA) unpublished "generally recognized as safe" (GRAS) status as a corrosion preventative in water (at levels below 100 mg/L).<sup>7</sup>

The U.S. Environmental Protection Agency (EPA) recognizes that silicate inhibitors may be effective in controlling corrosion of lead and copper in potable water systems.<sup>8</sup>

### THE NATURE OF SILICATE CORROSION INHIBITION

Studies have shown that soluble silicates are reactive with cationic metals and metal surfaces.<sup>9</sup> This phenomenon is the basis by which silicates inhibit corrosion and is illustrated at the top of the following page.<sup>10</sup>

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Phone: 011-52-55-5227-6801

**IN EUROPE**

PQ Europe  
Phone: 31-33-450-9030

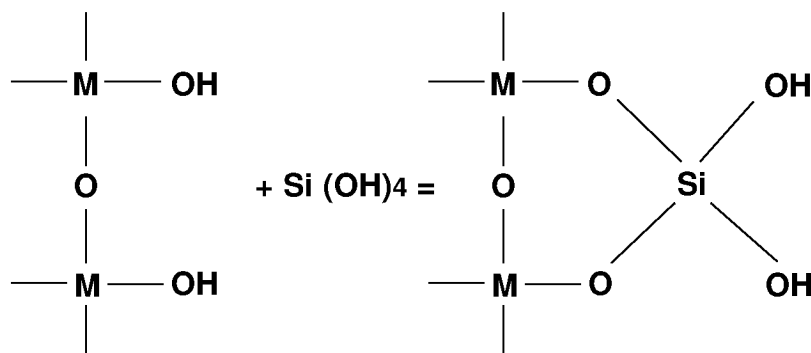
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**IN TAIWAN**

PQ Silicates Ltd.  
Phone: 886-2-2383-0515

**FIGURE 3. DEPOSITION OF SILICA ON METAL SURFACE**



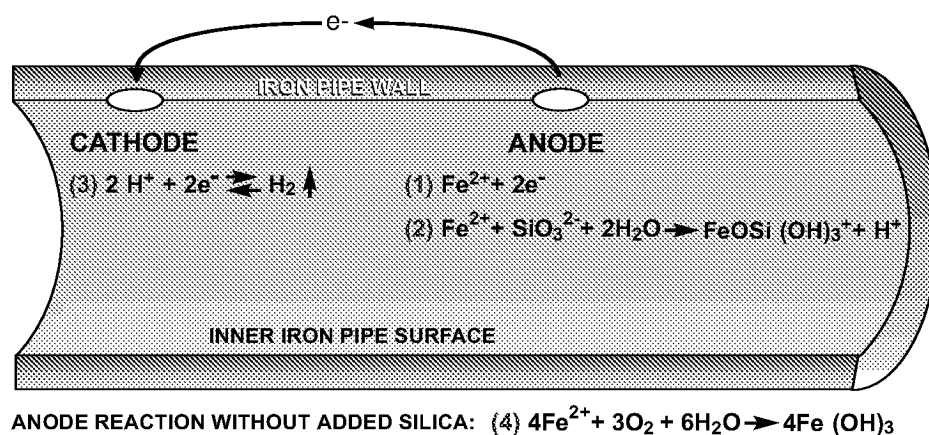
Monomeric and polymeric silica, introduced into a water distribution system as sodium silicate solution, is carried by flowing water to all parts of the distribution system. At the dilution levels used for water treatment, the majority of the silica depolymerizes to a reactive monomer form. The monomeric silica, which can be represented by  $(\text{SiO}_3)^{2-}$ , is adsorbed onto metal pipe surfaces at anodic areas, forming a thin monomolecular film on the interior of the pipe. This prevents any further corrosive reaction at the anode.

Corrosion will be inhibited when an anodic reaction of the type proposed between ferrous iron and silica (shown as equation (2) in Figure 4) occurs in place of the reaction which forms ferric hydroxide (shown as equation (4) in Figure 4). Protective films can be formed by such a reaction.

Microscopic and x-ray examination of the film formed at the metal surface show two layers, with most of the silica in the surface layer adjacent to the water. When the hydrous metal oxide film has been covered with a silica film, silica deposition stops.<sup>11</sup> The film does not build on itself, and therefore will not form excessive scale. The film is an electrical insulator and blocks the electrochemical reactions of corrosion, yet it is thin enough that it does not obstruct water flow.<sup>12</sup>

Corrosion protection with PQ sodium silicates can be achieved by modifying the  $\text{SiO}_2$  content of the water. Therefore the key water property is  $\text{SiO}_2$  con-

**FIGURE 4. POSTULATED ELECTROCHEMICAL REACTIONS OF IRON IN WATER, WITH AND WITHOUT ADDED SILICA**



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tent, not pH or calcium level, as in other types of corrosion control practices. Alkalinity, pH, and water hardness may influence the effectiveness of silicate treatment.

In many cases, natural  $\text{SiO}_2$  found in water probably has already "reacted" (i.e., adsorbed) with other metals in the water and may not be effective in reacting with metal pipes. Therefore, a fresh source of "reactive"  $\text{SiO}_2$  is needed (as from soluble silicate solutions).

**LENGTH OF CARRY**

When silicate treatment is first started, the system near the point of application is coated immediately; then the film continues to form at greater distances. Eventually, with continued feeding and sufficient water flow rate, the treatment becomes effective throughout the entire system.

Once the film has been created, the protection is maintained as long as silicate treatment is continued; if stopped, the protection is gradually lost. If damaged, the film is self healing, as long as the silicate feed is continued.

**METALS PROTECTED**

Silicate treatment is effective in controlling corrosion of many different metals and in systems made up of a variety of metals.

**METALS THAT HAVE BEEN SUCCESSFULLY PROTECTED  
BY TREATMENT OF SOLUBLE SILICATES:**

- |                                   |                    |
|-----------------------------------|--------------------|
| ■ Lead                            | ■ Galvanized Steel |
| ■ Copper                          | ■ Bronze           |
| ■ Cast Iron and<br>Ferrous Metals | ■ Red Brass        |
| ■ Steel                           | ■ Yellow Brass     |
|                                   | ■ Nickel Alloys    |

**PROTECTION OF CEMENTICIOUS MATERIALS**

Addition of silicate to water systems can protect cementitious materials from long term deterioration. The silicate reacts with available calcium to form insoluble calcium-silicate compounds. Studies have shown that silicate treatment may reduce the breakdown of asbestos-cement surfaces, thus prolonging the life of the material and minimizing the release of fibril asbestos.<sup>13</sup>

**COST OF TREATMENT**

The cost for silicate treatment will vary, depending on the amount of silicate being fed into the water system, and the quantities purchased.

**A GENERAL EQUATION FOR DETERMINING THE COST OF  
SILICATE TREATMENT IS:**

$$\frac{[8.34] [a] [b]}{[c]} = \frac{\$}{\text{MG water}}$$

a = desired  $\text{SiO}_2$  dose (in mg/L or ppm)  
b = \$/pound silicate solution  
c = wt. %  $\text{SiO}_2$  in silicate (decimal format)

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## TESTING THE EFFECTIVENESS OF SILICATE TREATMENT

The effectiveness of silicate corrosion inhibitors can be evaluated in a number of ways. Options include:

1. Monitoring levels of dissolved metals (e.g., Fe, Cu, Pb) in water samples before and after treatment.
2. Conducting pipe-loop studies based on U.S. Army Construction Engineering Research Laboratory (USA-CERL) and/or American Water Works Association Research Foundation (AWWARF) procedures.
3. Conducting coupon testing based on ATSM Test Method D-2688, "Corrosivity of Water in the Absence of Heat Transfer."

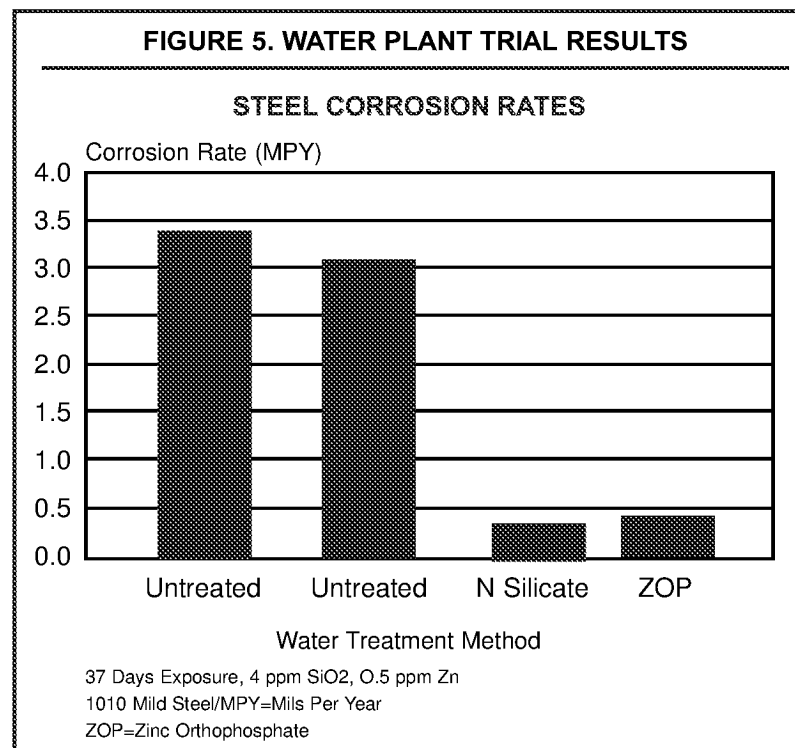
Results from a coupon test are presented in Figure 5. The water source was a surface water in southern California. The treatment levels of silicate and zinc orthophosphate used were cost equivalent.

These results are valid for the specific water tested and actual test conditions. The effectiveness of silicates on other waters may vary.

Current theory postulates that the presence of some corrosion product on the metal surface will enhance the effectiveness of the silicates since the reaction is believed to be between silica species and cationic metals (Figure 4). It is therefore recommended that coupon specimens and pipe loops be exposed to untreated water for a "conditioning" period prior to passivation. This practice will also be more representative of conditions that exist in actual water systems where corrosion has already occurred.

During lab or pilot testing, as in actual field use, a relatively high passivation dose of  $\text{SiO}_2$  is required initially for at least 30 days in order to establish the protective film on metal surfaces.

PQ technical service personnel are available to assist in evaluations of silicate corrosion inhibitors.





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**SUGGESTED PQ SILICATES FOR MUNICIPAL WATER TREATMENT**

Either PQ's N® or D® sodium silicate solutions can be used for corrosion control. The choice will depend on water quality and operator preference. Since D silicate is slightly more alkaline than N, it may be preferred in lower pH waters (e.g., water with pH below 6.0).

**TYPICAL PROPERTIES OF PQ SODIUM SILICATES**

PQ Product Name	N®	D®
Wt. Ratio (SiO <sub>2</sub> /Na <sub>2</sub> O)	3.22	2.00
%Na <sub>2</sub> O	8.9	14.7
%SiO <sub>2</sub>	28.7	29.4
Density @20°C (°Be)	41.0	50.5
(lb./gal.)	11.6	12.8
(g/cm <sup>3</sup> )	1.38	1.53
pH	11.3	12.7
Viscosity @20°C (cps)	180	400

**OTHER SILICATES**

In addition to solutions, PQ offers silicates in powder and glass form. The products (e.g., SS® or METSO®) can be mixed with other inhibitors to produce blended products.

**SILICATE DOSAGES**

Although there is natural silica (SiO<sub>2</sub>) in many waters, it may or may not have any inhibiting effect and is generally not considered in determining the dosage of the silicate treatment.

**PASSIVATION DOSAGE**

Normally, relatively high dosages of silicate are required during the first 30 to 60 days of treatment in order to form the initial protective coating. This initial silicate dosage is referred to as a passivation dosage and should be 24 mg/L above the background silica level.

The actual amount of time required to establish the initial coating will depend on the amount of silicate injected, water quality, water flow rates, and system length.

**MAINTENANCE DOSAGE**

After the first 30 to 60 days of treatment, or once film formation has been verified (i.e., by SiO<sub>2</sub> balance), the dosage can be reduced to a maintenance dose. It is advisable to reduce the silica dose incrementally, for example by lowering it to 12 mg SiO<sub>2</sub>/L for a period of time (e.g., 30 days), then 8 mg SiO<sub>2</sub>/L, and possibly even down to 4 mg/L. Silica balances should be done over the system as the dosage is decreased in order to verify that the protective film remains intact.

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## CALCULATING SILICATE DOSAGES

It is important to remember that commercial sodium silicate solutions consist of various proportions of silica (expressed as weight percent  $\text{SiO}_2$ ), alkali (expressed as  $\text{Na}_2\text{O}$ ), and water. The required silicate injection is based on the % $\text{SiO}_2$  in the silicate, the water flow rate through the system, and the desired incremental  $\text{SiO}_2$  level.

The following general equation can be used to determine silicate solution feed rates in gallons per day:

$$\frac{[8.34] [a] [b]}{[c] [d]} = \frac{\text{gallons silicate solution}}{\text{day}}$$

a = water flow rate (MGD)

b = desired  $\text{SiO}_2$  dose (mg/L or ppm)

c = wt. % $\text{SiO}_2$  in silicate (decimal format)

d = density of silicate (lb./gal.)

Example:

a = 2MGD

b = 24 mg  $\text{SiO}_2$ /L

c = 0.287 (wt. % $\text{SiO}_2$ )

d = 11.6 lb./gal.

$$\frac{[8.34] [2] [24]}{[0.287] [11.6]} = \frac{120.2 \text{ gal. silicate solution}}{\text{day}}$$

Alternatively, the following more specific relationships can be used:

### Using N® Silicate

To obtain: 1 mg  $\text{SiO}_2$ /L

Inject: 2.50 gal. N® per MG Water

For example, to get an incremental dosage of 8 mg  $\text{SiO}_2$ /L into a water stream flowing at 10 million gallons per day, 200 gallons per day N silicate must be injected ( $2.5 \times 8 \times 10 = 200$ ).

### Using D® Silicate

To obtain: 1 mg  $\text{SiO}_2$ /L

Inject: 2.25 gal. D® per MG Water

For example, to get an incremental dosage of 8 mg  $\text{SiO}_2$ /L into a water stream flowing at 0.5 million gallons per day, 9 gallons per day D silicate must be injected ( $2.25 \times 8 \times 0.5 = 9$ ).

In situations with low water flow rates it may be necessary to dilute the sodium silicate solution in order to get feed rates within the operating range of typical metering pumps.

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## **DETERMINING WHEN A PROTECTIVE FILM HAS BEEN FORMED IN A DISTRIBUTION SYSTEM BY SILICA BALANCE**

One way to monitor formation of the protective silica film is to do a silica ( $\text{SiO}_2$ ) balance around the distribution system. This involves first determining the normal background level of  $\text{SiO}_2$  in the water to be treated, and monitoring it periodically to make sure any changes are recognized.

The silicate treatment will involve introducing a known incremental amount of  $\text{SiO}_2$  (e.g., 24 mg/L). Once treatment begins, water samples at strategic end points of the distribution system are periodically checked for  $\text{SiO}_2$ . Once the incremental level of  $\text{SiO}_2$  at the ends of the distribution system matches the amount being introduced, no more  $\text{SiO}_2$  is being consumed (i.e., becoming part of the protective film). This means the initial protective coating has been formed, and the treatment dosage can gradually be reduced to a maintenance dosage which will maintain the protective film.

It is important to continuously feed the silicate maintenance dose in order to preserve the film. If silicate treatment is stopped, the film will gradually dissolve.

## **DETERMINATION OF SILICA**

Test kits for determination of silica, as well as continuous monitoring equipment, are available from firms such as:

### **Hach Chemical Company**

**P.O. Box 389**  
**Loveland, Colorado 80539**

Classical laboratory procedures for the determination of silica by colorimetric and photometric techniques may be found in standard texts on inorganic analysis.

Such procedures are published in "Standard Methods for the Examination of Water and Waste Water," American Public Health Association, Washington, D.C., or in current ASTM Book of Standards (ASTM Designation D-859, "Standard Test Method for Silica in Water").

Test methods for silica determination should be reviewed concerning possible interference effects that may influence the accuracy of results.

## **METHODS OF FEEDING**

Sodium silicate solutions can be easily added to water by means of positive displacement metering pumps. Piston, plunger, diaphragm and gear pumps are suitable. Chemical feed rates can be adjusted by changing the length and speed of the piston or diaphragm stroke, or by adjusting the gear speed.

Silicate solution should be injected at a point near the discharge of the water treatment plant, after final filtration, (i.e., at the clear well). With groundwater, the silicate can be injected at the well site. The silicate feed pump can be wired to activate based on water flow rates, or in conjunction with water transport pumps, in order to maintain the proper proportion of silicate to water.

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Aside from a suitable storage tank and feed pump, no special equipment is required to use silicate. The silicate solution can be stored in drums, day-tanks, or if delivered in tanker trucks, in bulk storage tanks. It can be fed at delivered concentration or diluted with water. If diluted, this must be considered when calculating dosages.

The internals of the silicate feed pumps should be flushed with water when they are taken out of service (e.g., during routine maintenance.) For additional information refer to PQ bulletin 17-70, "Storage and Handling of PQ Liquid Sodium and Potassium Silicates."

**SAFETY**

Sodium silicate solutions are inorganic compounds. They are not explosive or flammable and are not classified as hazards in U. S. Department of Transportation shipping regulations.

Due to their moderate alkalinity, care should be taken to prevent contact of silicate solutions with eyes and skin. Personnel involved in unloading and/or handling silicate solutions should use protective clothing and equipment to prevent accidental contact. This equipment generally consists of hard hat, chemical goggles or face shield, alkali-resistant gloves, safety footwear and coveralls.

If silicate is splashed into the eyes, flush immediately with warm water and seek medical attention. If splashed on the skin, sodium silicate solution should be washed off with water, preferably warm water. If allowed to remain in contact with the skin, irritation may result.

Wet silicate spills are slippery and will dehydrate to form glass-like films; therefore, it is recommended that minor spills be rinsed with water immediately.

Some dried deposits of liquid silicate may form sharp edges (e.g., if spilled around openings of sample jars), and care should be taken in such cases since skin cuts may result. Such cuts should be washed with water and given appropriate medical attention to prevent infection.

Additional safety information is contained in Material Safety Data Sheets supplied by PQ Corporation.

**SUMMARY TABLE**

1. Soluble silicates are economical, effective, and environmentally responsible chemicals that have been used for more than 70 years to protect metals from the corrosive effects of water. They do not contribute zinc or phosphorus to the environment.
2. Silicates are approved as direct additives to potable water. They are nonhazardous, nontoxic, and nonflammable. They do not impart any taste or odor to water.
3. American Water Works Association Standard for Liquid Sodium Silicate (ANSI/AWWA B404) recognizes the use of sodium silicate in water treatment.
4. The U.S. Environmental Protection Agency recognizes that silicates may be effective in controlling lead and copper corrosion in potable water systems.
5. At the dilutions typical in water treatment, most of the added silica is in the monomeric form.



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6. The silica in sodium silicate solutions carries a negative charge and will migrate to anodic areas where it can react with metallic ions and form a protective film that inhibits corrosion.
7. The alkali present in silicate will typically raise pH. Increases in pH generally lead to decreased corrosion rates.
8. The film does not build on itself and will not obstruct water flow.
9. In areas of low water flow the supply of silica may eventually be exhausted within the effective range of the electrical forces around the anode. A sufficient water flow is required to supply additional silica.
10. In areas of low flow, the pH contribution of the silicate may also be reduced.
11. If only part of the area is protected, the remainder takes all the attack of the corrosive medium. Therefore it is important to use enough inhibitor.
12. The efficacy of the silicate treatment may vary with the type of metal.
13. The treatment has inhibited corrosion in systems where two dissimilar metals are in contact.
14. A passivation dose of 24 mg  $\text{SiO}_2/\text{L}$  is recommended during the first 30-60 days of treatment in order to quickly establish the protective film.
15. After the protective film has been formed, it can be maintained by feeding less silicate. In most waters a maintenance dosage of 8 mg  $\text{SiO}_2/\text{L}$  is effective.
16. The minimum recommended maintenance dosage is 4 mg  $\text{SiO}_2/\text{L}$ .
17. Higher dosages of silicate have been shown to give better protection from corrosion.
18. Higher dosages of silicate speed the formation of the protective film.
19. Optimum silicate dosage will depend on specific water chemistry and system characteristics.
20. The preferred sodium silicate solution for treating water with pH greater than 6.0 is 3.22 ratio  $\text{SiO}_2/\text{Na}_2\text{O}$ . For waters with pH of 6.0 or lower, 2.00 ratio  $\text{SiO}_2/\text{Na}_2\text{O}$  is preferred.
21. Silicate solutions from PQ are supplied ready to use, or may be diluted.
22. Contact PQ Corporation for product samples or additional information.

**ABBREVIATIONS**

**MGD:** Million Gallons per Day

**mg/L:** Milligram per Liter

**cps:** Centipoise

**ppm:** Parts per Million

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**FACTORS FOR UNIT CONVERSIONS**

Quantity	Equivalent Values
Mass	1 kg=1000g= 0.001 metric ton = 2.20462 lb
Volume	1 m3 = 1000 liters = 106 cm3 = 106 ml = 22.83 imperial gallons = 27.41 gallons
Concentration	1 mg/L = 1 ppm = 0.0001%
Viscosity	1 centipoise = 1 millipascal-second = 0.01 poise

**LITERATURE REFERENCES**

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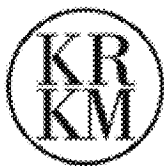
**From:** Baird, Richard (GOV)  
**Sent:** Friday, January 22, 2016 6:16 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Fwd: PQ / Water Treatment  
**Attachments:** 37-3 Water Corrosion (2).pdf

FYI. Can't see there is any need but should close loop. Thanks.

*Sent from my Verizon Wireless 4G LTE DROID*

----- Forwarded message -----

**From:** Deb Muchmore <[muchmored@krkm.com](mailto:muchmored@krkm.com)>  
**Date:** Jan 22, 2016 5:38 PM  
**Subject:** PQ / Water Treatment  
**To:** "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>  
**Cc:**



Deborah A. Muchmore | Partner  
KANDLER REED KHOURY & MUCHMORE  
124 W Allegan | Suite 1700  
Lansing, MI 48933  
(313) 485-4044 | Office  
(313) 643-7261 | Mobile  
[KRKM.com](http://KRKM.com)

---

**From:** Andy Andersen(SAR) [<mailto:andy.andersen@pottersbeads.com>]  
**Sent:** Friday, January 22, 2016 3:36 PM  
**To:** Deb Muchmore <[muchmored@krkm.com](mailto:muchmored@krkm.com)>  
**Subject:** RE: KRKM Connect

Deb,

Attached is our brochure on our product with all the technical info about it. In a nutshell our product

One of the safest industrial chemicals

No toxic or volatile material

Stable for extended periods of time

No organics and Non-flammable

GRAS for food contact and use in water

NSF Certified for use in drinking water

The major advantages over phosphate use is

It removes more lead than ...

It is not a fertilizer - will not cause over growth of algae and other water plants at discharge points unlike ...

It works faster to stop the lead from coming out of the pipe than ...

And it is cheaper than ....

Let me know what you find out?

Have a great weekend

Best Regards,

Andy Andersen

Potters Industries

941-266-8442

---

**From:** Deb Muchmore [<mailto:muchmored@krkm.com>]

**Sent:** Thursday, January 21, 2016 4:16 PM

**To:** Andy Andersen(SAR)

**Subject:** KRKM Connect

Thanks.



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**From:** Stoken, Laura (GOV)  
**Sent:** Sunday, January 24, 2016 10:33 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: We have a non profit called Pure Water Movement and would like to help.  
**Attachments:** what puritii filters including Lead .jpg

For your determination

**From:** Claudia Ordonio [<mailto:dreamsrpossible4u@gmail.com>]  
**Sent:** Saturday, January 23, 2016 12:22 AM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>; Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Cc:** Claudia Ordonio <[dreamsrpossible4u@gmail.com](mailto:dreamsrpossible4u@gmail.com)>  
**Subject:** We have a non profit called Pure Water Movement and would like to help.

Dear Governor Snyder and Lt Governor Brian Calley,

I know you have been getting undated with many companies that have solutions for the Lead problem in the water. We may have a very viable solution for many families and I would like to talk to someone and connect them to our corporate office so we can see how we can help since our company has already been providing the bottles and portable tank systems as a non profit already.



**Pure Water Movement**

The Pure Water Movement, Inc. is a non-profit organization that provides clean water filter bottles and portable tank systems to people without access to clean water.

PROVIDING PURE CLEAN  
DRINKING WATER  
TO THOSE IN NEED

My sister Sharon DeCarlo who lives in Shelby township Michigan and I are with a company named Ariix. We have a personal water bottles that filter out lead and heavy metals, viruses, bacteria and much more and filters 50 gallons per bottle ( or 280 (16oz ) bottles of water. They can use this where ever they are not just in the home.

Here is our site information <http://puritii.com/water/index.html>

This is the independent study of what the Puritii water bottles filters out. [http://www.puritii.com/water/\\_pdf/puritii\\_testing\\_procedures.pdf](http://www.puritii.com/water/_pdf/puritii_testing_procedures.pdf)

This water bottle is already being used in Singapore and China and was used by Navy Seals in Afghanistan. I know our company can work with your office to get a large amount of water bottle to the people who need it the most.



## Microbiological Organisms

Water System	Contaminant	Detected Health Effect	Exposure Rate	Health Risk Assessment
Water System - North	Radon	Genotoxicity, cancers	90-99.9%	Exceeds standards by 100x
Water System - North	Mercury	Neurotoxicity, cancers	90-99.9%	Exceeds standards by 100x
Water System - North	Hexachloro	Genotoxicity, cancers	90-99.9%	Exceeds standards by 100x

## Volatile Organic Compounds (VOC's)

Water Source	Contaminant	Observed Exposure (1)	Estimated Exposure	Exceeds Standards
Flow Through Water	Air EDT	Cancer	>6.3%	Exceeds Standards
Flow Through Water	Aden	Cancer, Reproductive system damage, Nervous system damage	>6.0%	Exceeds Standards
Flow Through Water	Chloro	Cancer, Reproductive system damage, Nervous system damage	>6.3%	Exceeds Standards
Flow Through Water	Endosulfan Sulfate	Cancer	>6.2%	Exceeds Standards
Flow Through Water	Endo	Cancer problems	59.90%	Exceeds Standards
Flow Through Water	Insecticide	Increased risk of cancer or liver damage	>6.3%	Exceeds Standards
Flow Through Water	Endane	Liver or kidney problems	58.70%	Exceeds Standards
Flow Through Water	Mulchion	Cancer	59.52%	Exceeds Standards
Flow Through Water	Chloroform	Mutic, nervous system damage, Cancer	55.68%	Exceeds Standards

## Inorganics

Water System	Contaminant	Primary Human Effect	Prevalence Rate	Mitigation Strategies
Point A Chlorine Water	Chromium	Liver, kidney, circulatory disorders	93-97%	Exceeds Standards
Point B Fluoride Water	Lead	Nervous, circulatory system damage	>95%	Exceeds Standards
Point C Chlorine Water	Dioxin	Cancer, Reproductive system damage, Nervous system damage	>95-97%	Exceeds Standards
Point D Fluoride Water	Chromium <sup>VI</sup>	Kidney damage, cancer	>95-98%	Exceeds Standards
Point E Chlorine Water	Mercury	Brain damage	96-99%	Exceeds Standards

## Disinfectantis

Water Sample	Chlorination	Removal of Micro-Organisms	Removal of Taste	MSD Method Approved
Pratap College Water	Chlorite	Over 99% reduction observed	99.50%	Exceeds Standards

## Trihalomethanes / VOC

Water Sample	Contaminant	Discharge Point (km)	Percentage (%)	End Use & Comments
Plant Effluent Water	Chlorophyll	Alkali, benzene system storage, cancer	92.60%	Excess Benzene
Plant Effluent Water	Benzene	Cancer, Leukemia, anemia	94.57%	Excess Benzene

## Testing Procedures

the 1990s, the number of people in the United States who are 65 years of age or older has increased by 50 percent, and the number of people 75 years of age or older has increased by 100 percent. The number of people 85 years of age or older has increased by 200 percent. The number of people 95 years of age or older has increased by 400 percent. The number of people 100 years of age or older has increased by 1,000 percent. The number of people 105 years of age or older has increased by 2,000 percent. The number of people 110 years of age or older has increased by 4,000 percent. The number of people 115 years of age or older has increased by 8,000 percent. The number of people 120 years of age or older has increased by 16,000 percent. The number of people 125 years of age or older has increased by 32,000 percent. The number of people 130 years of age or older has increased by 64,000 percent. The number of people 135 years of age or older has increased by 128,000 percent. The number of people 140 years of age or older has increased by 256,000 percent. The number of people 145 years of age or older has increased by 512,000 percent. The number of people 150 years of age or older has increased by 1,024,000 percent. The number of people 155 years of age or older has increased by 2,048,000 percent. The number of people 160 years of age or older has increased by 4,096,000 percent. The number of people 165 years of age or older has increased by 8,192,000 percent. The number of people 170 years of age or older has increased by 16,384,000 percent. The number of people 175 years of age or older has increased by 32,768,000 percent. The number of people 180 years of age or older has increased by 65,536,000 percent. The number of people 185 years of age or older has increased by 131,072,000 percent. The number of people 190 years of age or older has increased by 262,144,000 percent. The number of people 195 years of age or older has increased by 524,288,000 percent. The number of people 200 years of age or older has increased by 1,048,576,000 percent. The number of people 205 years of age or older has increased by 2,097,152,000 percent. The number of people 210 years of age or older has increased by 4,194,304,000 percent. The number of people 215 years of age or older has increased by 8,388,608,000 percent. The number of people 220 years of age or older has increased by 16,777,216,000 percent. The number of people 225 years of age or older has increased by 33,554,432,000 percent. The number of people 230 years of age or older has increased by 67,108,864,000 percent. The number of people 235 years of age or older has increased by 134,217,728,000 percent. The number of people 240 years of age or older has increased by 268,435,456,000 percent. The number of people 245 years of age or older has increased by 536,870,912,000 percent. The number of people 250 years of age or older has increased by 1,073,741,824,000 percent. The number of people 255 years of age or older has increased by 2,147,483,648,000 percent. The number of people 260 years of age or older has increased by 4,294,967,296,000 percent. The number of people 265 years of age or older has increased by 8,589,934,592,000 percent. The number of people 270 years of age or older has increased by 17,179,869,184,000 percent. The number of people 275 years of age or older has increased by 34,359,738,368,000 percent. The number of people 280 years of age or older has increased by 68,719,476,736,000 percent. The number of people 285 years of age or older has increased by 137,438,953,472,000 percent. The number of people 290 years of age or older has increased by 274,877,906,944,000 percent. The number of people 295 years of age or older has increased by 549,755,813,888,000 percent. The number of people 300 years of age or older has increased by 1,099,511,627,776,000 percent. The number of people 305 years of age or older has increased by 2,199,023,255,552,000 percent. The number of people 310 years of age or older has increased by 4,398,046,511,104,000 percent. The number of people 315 years of age or older has increased by 8,796,093,022,208,000 percent. The number of people 320 years of age or older has increased by 17,592,186,044,416,000 percent. The number of people 325 years of age or older has increased by 35,184,372,088,832,000 percent. The number of people 330 years of age or older has increased by 70,368,744,177,664,000 percent. The number of people 335 years of age or older has increased by 140,737,488,355,328,000 percent. The number of people 340 years of age or older has increased by 281,474,976,710,656,000 percent. The number of people 345 years of age or older has increased by 562,949,953,421,312,000 percent. The number of people 350 years of age or older has increased by 1,125,899,906,842,624,000 percent. The number of people 355 years of age or older has increased by 2,251,799,813,685,248,000 percent. The number of people 360 years of age or older has increased by 4,503,599,627,370,496,000 percent. The number of people 365 years of age or older has increased by 9,007,199,254,740,992,000 percent. The number of people 370 years of age or older has increased by 18,014,398,509,481,984,000 percent. The number of people 375 years of age or older has increased by 36,028,797,018,963,968,000 percent. The number of people 380 years of age or older has increased by 72,057,594,037,927,936,000 percent. The number of people 385 years of age or older has increased by 144,115,188,075,855,872,000 percent. The number of people 390 years of age or older has increased by 288,230,376,151,711,744,000 percent. The number of people 395 years of age or older has increased by 576,460,752,303,423,488,000 percent. The number of people 400 years of age or older has increased by 1,152,921,504,606,846,976,000 percent. The number of people 405 years of age or older has increased by 2,305,843,009,213,693,952,000 percent. The number of people 410 years of age or older has increased by 4,611,686,018,427,387,904,000 percent. The number of people 415 years of age or older has increased by 9,223,372,036,854,775,808,000 percent. The number of people 420 years of age or older has increased by 18,446,744,073,709,551,616,000 percent. The number of people 425 years of age or older has increased by 36,893,488,147,419,103,232,000 percent. The number of people 430 years of age or older has increased by 73,786,976,294,838,206,464,000 percent. The number of people 435 years of age or older has increased by 147,573,952,589,676,412,928,000 percent. The number of people 440 years of age or older has increased by 295,147,905,179,352,825,856,000 percent. The number of people 445 years of age or older has increased by 590,295,810,358,705,651,712,000 percent. The number of people 450 years of age or older has increased by 1,180,591,620,717,411,303,424,000 percent. The number of people 455 years of age or older has increased by 2,361,183,241,434,822,606,848,000 percent. The number of people 460 years of age or older has increased by 4,722,366,482,869,645,213,696,000 percent. The number of people 465 years of age or older has increased by 9,444,732,965,739,290,427,392,000 percent. The number of people 470 years of age or older has increased by 18,889,465,931,478,580,854,784,000 percent. The number of people 475 years of age or older has increased by 37,778,931,862,957,161,709,568,000 percent. The number of people 480 years of age or older has increased by 75,557,863,725,914,323,419,136,000 percent. The number of people 485 years of age or older has increased by 151,115,727,451,828,646,838,272,000 percent. The number of people 490 years of age or older has increased by 302,231,454,903,657,293,676,544,000 percent. The number of people 495 years of age or older has increased by 604,462,909,807,314,587,353,088,000 percent. The number of people 500 years of age or older has increased by 1,208,925,819,614,629,174,706,176,000 percent. The number of people 505 years of age or older has increased by 2,417,851,639,229,258,349,412,352,000 percent. The number of people 510 years of age or older has increased by 4,835,703,278,458,516,698,824,704,000 percent. The number of people 515 years of age or older has increased by 9,671,406,556,917,033,397,649,408,000 percent. The number of people 520 years of age or older has increased by 19,342,813,113,834,066,795,298,816,000 percent. The number of people 525 years of age or older has increased by 38,685,626,227,668,133,590,597,632,000 percent. The number of people 530 years of age or older has increased by 77,371,252,455,336,267,181,195,264,000 percent. The number of people 535 years of age or older has increased by 154,742,504,910,672,534,362,390,528,000 percent. The number of people 540 years of age or older has increased by 309,485,009,821,345,068,724,781,056,000 percent. The number of people 545 years of age or older has increased by 618,970,019,642,690,137,449,562,112,000 percent. The number of people 550 years of age or older has increased by 1,237,940,039,285,380,274,899,124,224,000 percent. The number of people 555 years of age or older has increased by 2,475,880,078,570,760,549,798,248,448,000 percent. The number of people 560 years of age or older has increased by 4,951,760,157,141,521,099,596,496,896,000 percent. The number of people 565 years of age or older has increased by 9,903,520,314,283,042,199,193,993,792,000 percent. The number of people 570 years of age or older has increased by 19,807,040,628,566,084,398,387,987,584,000 percent. The number of people 575 years of age or older has

**Discussion**—The results of this study suggest that the use of a single, standardized, and validated questionnaire is a feasible and reliable method for assessing the prevalence of self-reported depression in a community-based sample. The prevalence of self-reported depression was 10.3%, which is similar to the 10.1% prevalence reported in the National Comorbidity Survey Replication (NCS-R) [10]. The prevalence of self-reported depression was also similar to the 10.5% prevalence reported in the National Health and Medical Research Council's Australian Depression Clinical Practice Guidelines [11]. The prevalence of self-reported depression was also similar to the 10.1% prevalence reported in the National Health and Medical Research Council's Australian Depression Clinical Practice Guidelines [11]. The prevalence of self-reported depression was also similar to the 10.1% prevalence reported in the National Health and Medical Research Council's Australian Depression Clinical Practice Guidelines [11].

These results suggest that the use of a single, non-validated questionnaire may not be sufficient to identify the prevalence of mental health problems in the community. The use of a validated questionnaire, such as the GHQ-12, may be more appropriate for this purpose. The use of a validated questionnaire may also be more appropriate for the identification of mental health problems in the community, as it may be more reliable and valid than a single, non-validated questionnaire. The use of a validated questionnaire may also be more appropriate for the identification of mental health problems in the community, as it may be more reliable and valid than a single, non-validated questionnaire.

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**Keywords:** *depression, mood, mood disorder, mood disorder with anxiety, mood disorder without anxiety, mood disorder with anxiety, mood disorder without anxiety, mood disorder with anxiety, mood disorder without anxiety*



## Microbiological Organisms

Water System	Contaminant	Detected Health Effect	Exposure Rate	WHO Standards
Water System - Boise	Radon	Genotoxic effects	500-5000 dpm/l	EXC-2000 standards by 100
Water System - Boise	Mercury	Neurotoxic effects	90-99%	EXC-2000 standards by 100
Water System - Boise	Fluoride	Genotoxic effects	500-5000 dpm/l	EXC-2000 standards by 1000

## Volatile Organic Compounds (VOC's)

Water Source	Contaminant	Observed Concentration	Maximum Allowable Concentration	Exceeds Standards
Flow #Thruout Water	A-I EDT	Cancer	>6.3%	Exceeds Standards
Flow #Thruout Water	Aden	Cancer, Reproductive system damage, Nervous system damage	>6.3%	Exceeds Standards
Flow #Thruout Water	Deleto	Cancer, Reproductive system damage, Nervous system damage	>6.3%	Exceeds Standards
Flow #Thruout Water	Endosulfan Sulfate	Cancer	>6.2%	Exceeds Standards
Flow #Thruout Water	Endo	Cancer problems	99.99%	Exceeds Standards
Flow #Thruout Water	Hexachlor	Increased risk of cancer or liver damage	>6.3%	Exceeds Standards
Flow #Thruout Water	Endrine	Liver or kidney problems	>6.70%	Exceeds Standards
Flow #Thruout Water	Moluthion	Cancer	99.99%	Exceeds Standards
Flow #Thruout Water	Chloroform	Mutic, nervous system damage, Cancer	95.68%	Exceeds Standards

## Inorganics

Water System	Contaminant	Primary Human Effect	Prevalence Rate	Medical Standards
Point A Chromium Water	Chromium	Liver, kidney, circulatory disorders	93-97%	Exceeds Standards
Point B Fluoride Water	Lead	Nervous, circulatory system damage	>95%	Exceeds Standards
Point C Chromium Water	Dioxin	Cancer, Reproductive system damage, Nervous system damage	>95-97%	Exceeds Standards
Point D Chromium Water	Chromium <sup>VI</sup>	Kidney damage, cancer	>95-98%	Exceeds Standards
Point E Chromium Water	Mercury	Brain damage	96-99%	Exceeds Standards

## Disinfectantis

Water Sample	Chlorination	Removal of Micro-Organisms	Removal of Taste	MSD Method Approved
Pratap College Water	Chlorite	Over 99% reduction observed	99.50%	Exceeds Standards

## Trihalomethanes / VOC

Water Sample	Contaminant	Discharge Point (km)	Percentage (%)	End Use & Comments
Plant Effluent Water	Chlorophyll	Alkali, benzene system storage, cancer	92.60%	Excess Benzene
Plant Effluent Water	Benzene	Cancer, Leukemia, anemia	94.57%	Excess Benzene

## Testing Procedures

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

the 1990s, the number of people in the United States who are 65 years of age or older has increased by 50 percent. The number of people 75 years of age or older has increased by 100 percent. The number of people 85 years of age or older has increased by 200 percent. The number of people 95 years of age or older has increased by 400 percent. The number of people 100 years of age or older has increased by 1,000 percent. The number of people 105 years of age or older has increased by 2,000 percent. The number of people 110 years of age or older has increased by 4,000 percent. The number of people 115 years of age or older has increased by 8,000 percent. The number of people 120 years of age or older has increased by 16,000 percent. The number of people 125 years of age or older has increased by 32,000 percent. The number of people 130 years of age or older has increased by 64,000 percent. The number of people 135 years of age or older has increased by 128,000 percent. The number of people 140 years of age or older has increased by 256,000 percent. The number of people 145 years of age or older has increased by 512,000 percent. The number of people 150 years of age or older has increased by 1,024,000 percent. The number of people 155 years of age or older has increased by 2,048,000 percent. The number of people 160 years of age or older has increased by 4,096,000 percent. The number of people 165 years of age or older has increased by 8,192,000 percent. The number of people 170 years of age or older has increased by 16,384,000 percent. The number of people 175 years of age or older has increased by 32,768,000 percent. The number of people 180 years of age or older has increased by 65,536,000 percent. The number of people 185 years of age or older has increased by 131,072,000 percent. The number of people 190 years of age or older has increased by 262,144,000 percent. The number of people 195 years of age or older has increased by 524,288,000 percent. The number of people 200 years of age or older has increased by 1,048,576,000 percent. The number of people 205 years of age or older has increased by 2,097,152,000 percent. The number of people 210 years of age or older has increased by 4,194,304,000 percent. The number of people 215 years of age or older has increased by 8,388,608,000 percent. The number of people 220 years of age or older has increased by 16,777,216,000 percent. The number of people 225 years of age or older has increased by 33,554,432,000 percent. The number of people 230 years of age or older has increased by 67,108,864,000 percent. The number of people 235 years of age or older has increased by 134,217,728,000 percent. The number of people 240 years of age or older has increased by 268,435,456,000 percent. The number of people 245 years of age or older has increased by 536,870,912,000 percent. The number of people 250 years of age or older has increased by 1,073,741,824,000 percent. The number of people 255 years of age or older has increased by 2,147,483,648,000 percent. The number of people 260 years of age or older has increased by 4,294,967,296,000 percent. The number of people 265 years of age or older has increased by 8,589,934,592,000 percent. The number of people 270 years of age or older has increased by 17,179,869,184,000 percent. The number of people 275 years of age or older has increased by 34,359,738,368,000 percent. The number of people 280 years of age or older has increased by 68,719,476,736,000 percent. The number of people 285 years of age or older has increased by 137,438,953,472,000 percent. The number of people 290 years of age or older has increased by 274,877,906,944,000 percent. The number of people 295 years of age or older has increased by 549,755,813,888,000 percent. The number of people 300 years of age or older has increased by 1,099,511,627,776,000 percent. The number of people 305 years of age or older has increased by 2,199,023,255,552,000 percent. The number of people 310 years of age or older has increased by 4,398,046,511,104,000 percent. The number of people 315 years of age or older has increased by 8,796,093,022,208,000 percent. The number of people 320 years of age or older has increased by 17,592,186,044,416,000 percent. The number of people 325 years of age or older has increased by 35,184,372,088,832,000 percent. The number of people 330 years of age or older has increased by 70,368,744,177,664,000 percent. The number of people 335 years of age or older has increased by 140,737,488,355,328,000 percent. The number of people 340 years of age or older has increased by 281,474,976,710,656,000 percent. The number of people 345 years of age or older has increased by 562,949,953,421,312,000 percent. The number of people 350 years of age or older has increased by 1,125,899,906,842,624,000 percent. The number of people 355 years of age or older has increased by 2,251,799,813,685,248,000 percent. The number of people 360 years of age or older has increased by 4,503,599,627,370,496,000 percent. The number of people 365 years of age or older has increased by 9,007,199,254,740,992,000 percent. The number of people 370 years of age or older has increased by 18,014,398,509,481,984,000 percent. The number of people 375 years of age or older has increased by 36,028,797,018,963,968,000 percent. The number of people 380 years of age or older has increased by 72,057,594,037,927,936,000 percent. The number of people 385 years of age or older has increased by 144,115,188,075,855,872,000 percent. The number of people 390 years of age or older has increased by 288,230,376,151,711,744,000 percent. The number of people 395 years of age or older has increased by 576,460,752,303,423,488,000 percent. The number of people 400 years of age or older has increased by 1,152,921,504,606,846,976,000 percent. The number of people 405 years of age or older has increased by 2,305,843,009,213,693,952,000 percent. The number of people 410 years of age or older has increased by 4,611,686,018,427,387,904,000 percent. The number of people 415 years of age or older has increased by 9,223,372,036,854,775,808,000 percent. The number of people 420 years of age or older has increased by 18,446,744,073,709,551,616,000 percent. The number of people 425 years of age or older has increased by 36,893,488,147,419,103,232,000 percent. The number of people 430 years of age or older has increased by 73,786,976,294,838,206,464,000 percent. The number of people 435 years of age or older has increased by 147,573,952,589,676,412,928,000 percent. The number of people 440 years of age or older has increased by 295,147,905,179,352,825,856,000 percent. The number of people 445 years of age or older has increased by 590,295,810,358,705,651,712,000 percent. The number of people 450 years of age or older has increased by 1,180,591,620,717,411,303,424,000 percent. The number of people 455 years of age or older has increased by 2,361,183,241,434,822,606,848,000 percent. The number of people 460 years of age or older has increased by 4,722,366,482,869,645,213,696,000 percent. The number of people 465 years of age or older has increased by 9,444,732,965,739,290,427,392,000 percent. The number of people 470 years of age or older has increased by 18,889,465,931,478,580,854,784,000 percent. The number of people 475 years of age or older has increased by 37,778,931,862,957,161,709,568,000 percent. The number of people 480 years of age or older has increased by 75,557,863,725,914,323,419,136,000 percent. The number of people 485 years of age or older has increased by 151,115,727,451,828,646,838,272,000 percent. The number of people 490 years of age or older has increased by 302,231,454,903,657,293,676,544,000 percent. The number of people 495 years of age or older has increased by 604,462,909,807,314,587,353,088,000 percent. The number of people 500 years of age or older has increased by 1,208,925,819,614,629,174,706,176,000 percent. The number of people 505 years of age or older has increased by 2,417,851,639,229,258,349,412,352,000 percent. The number of people 510 years of age or older has increased by 4,835,703,278,458,516,698,824,704,000 percent. The number of people 515 years of age or older has increased by 9,671,406,556,917,033,397,649,408,000 percent. The number of people 520 years of age or older has increased by 19,342,813,113,834,066,795,298,816,000 percent. The number of people 525 years of age or older has increased by 38,685,626,227,668,133,590,597,632,000 percent. The number of people 530 years of age or older has increased by 77,371,252,455,336,267,181,195,264,000 percent. The number of people 535 years of age or older has increased by 154,742,504,910,672,534,362,390,528,000 percent. The number of people 540 years of age or older has increased by 309,485,009,821,345,068,724,781,056,000 percent. The number of people 545 years of age or older has increased by 618,970,019,642,690,137,449,562,112,000 percent. The number of people 550 years of age or older has increased by 1,237,940,039,285,380,274,899,124,224,000 percent. The number of people 555 years of age or older has increased by 2,475,880,078,570,760,549,798,248,448,000 percent. The number of people 560 years of age or older has increased by 4,951,760,157,141,521,099,596,496,896,000 percent. The number of people 565 years of age or older has increased by 9,903,520,314,283,042,199,193,993,792,000 percent. The number of people 570 years of age or older has increased by 19,807,040,628,566,084,398,387,987,584,000 percent. The number of people 575 years of age or older has increased

These results suggest that the use of the *in vitro* model is a useful tool for the study of the effects of chemical agents on the development of the embryo. The use of this model is particularly useful for the study of the effects of chemical agents on the development of the embryo in the early stages of development, when the embryo is most vulnerable to the effects of chemical agents. The use of this model is also useful for the study of the effects of chemical agents on the development of the embryo in the later stages of development, when the embryo is less vulnerable to the effects of chemical agents. The use of this model is also useful for the study of the effects of chemical agents on the development of the embryo in the presence of other chemical agents, which may have synergistic or antagonistic effects on the development of the embryo.

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

**Keywords:** child sexual abuse; disclosure; social support; self-esteem; coping strategies

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**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, January 26, 2016 11:42 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** Solution- Company

**From:** [jbailor@hydrogen411technology.com](mailto:jbailor@hydrogen411technology.com) [<mailto:jbailor@hydrogen411technology.com>]  
**Sent:** Tuesday, January 26, 2016 11:41 AM  
**To:** Stoken, Laura (GOV) <[StokenL@michigan.gov](mailto:StokenL@michigan.gov)>  
**Subject:** Per our conversation/ Water Crisis

Dear Laura,

Thank you so much for your help! Michigan needs a real solution that will fit the states budget and solve the never ending pollution issues. As I stated this is not my companies technology but I am honored to be trusted to represent it. The inventor is a true humanitarian so each deployment must fit a criteria that involves environmental clean up. This technology has been fully vetted in uninterrupted operation for over ten years.

This is WTE (Waste to Energy) Plasma Technology which is nothing new except this is the only WTE system that can operate on dirty water alone. The by product is 100% pure water and energy. A small system could take in 300,000 gallons from the Flint River per day and produce 250,000 gallons of pure water and 10MW of Electricity. The process is 100% emission free. Water is not the only feed stock any waste can be eliminated that would include the lead infested pipes that will need to be disposed of.

This is a new way of thinking about waste. The old thinking is to dump it in our rivers and lakes or bury it and hope it go's away. Now waste is a commodity!

Why would this be the best solution? 1st. it's affordable because it is not for sale. As simple as I can describe it the City of Flint puts up 5 million dollars as what I will describe as an engagement fee for now. After the cities or states engineers visit one of the deployments and conduct load tests and all vetting. When all contracts are negotiated then money changes hands. That money is payed back to the city with interest within the 1st few years of the contract.

The owner inventor makes money from the sale of electricity. Flint gets the water for free. It's a win win but will require people working together to change the old paradigm. This will require cooperation from waste management and Consumers Electric.

At a time when the infrastructure must be rebuilt we have to consider the importance of doing it right this time.

I look forward to opening dialogue with the appropriate people.

Best Regards,

John Ballor  
Founder/ Managing Partner  
Hydrogen411 Technology LLC  
[www.hydrogen411technology.com](http://www.hydrogen411technology.com)

[jballor@hydrogen411technology.com](mailto:jballor@hydrogen411technology.com)

1-855-411-H24T (4248) Phone & Fax

989-545-9261 mobile



Hydrogen411 Technology

Integrated Energy Solutions

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**From:** Stoken, Laura (GOV)  
**Sent:** Monday, January 25, 2016 3:12 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: More suggestions water crisis help.

**From:** C Laymn [<mailto:layman.candi@gmail.com>]  
**Sent:** Monday, January 25, 2016 2:43 PM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** More suggestions water crisis help.

Dear Laura,

I wrote to you regarding drilling wells for Flint to supply ongoing water. After my discussions with my husband, an attorney he wondered if you had considered Eminent Domain to declare an EPA Superfund Site, I didn't think this would work due to people wanting to keep their jobs, but it did give me another unique idea.

Tiny housing is becoming very popular. You could have University of Michigan and GM to help you innovate jobs and new eco-friendly living homes - tiny homes. Some are mobile, some are not. It would help Flint for any foreclosures or blighted areas (I have a banking background and any EPA remediation on lead will really hurt the banks if buyers default). You could generate jobs, rebuild key employers plumbing, and demo anything that is blighted - allowing Flint a unique opportunity to see if something like this would work in larger cities like Detroit, Gary or area in Chicago. You could

turn a negative into a positive while building jobs and helping people in economic distress.

I would add the fine state of Indiana already has lots of experience with RV bases and building on smaller scale - but you could use their know-how and better eco-friendly materials to help mitigate the potential for serious health problems. A huge plus is, if you build the tiny homes to be pulled (like some programs I've seen), then some people may choose to leave Flint, and you'd see just who wanted to remain creating a more sustainable region along with offering an out for those in poverty who would like a fresh start somewhere else if they choose.

Keeping you in my thoughts and prayers.

Candi Layman

419-670-4680

Fort Wayne, Indiana

[layman.candi@gmail.com](mailto:layman.candi@gmail.com)

---

**From:** Wisniewski, Wendy (GOV)  
**Sent:** Tuesday, January 26, 2016 8:16 AM  
**To:** Baird, Richard (GOV); Sachs, Tori (GOV)  
**Cc:** Manolakoudis, Virginia (GOV)  
**Subject:** FW: CGI/DCMC Partners

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Jarrold said I should forward this meeting request to you guys for review.

---

**From:** Mike Compagnoni [mailto:compagnoni@midweststrategy.com]  
**Sent:** Monday, January 25, 2016 5:01 PM  
**To:** Wisniewski, Wendy (GOV) <wisniewski@midweststrategy.com>  
**Cc:** Nicole Nystrom <nystrom@midweststrategy.com>  
**Subject:** CGI/DCMC Partners

Wendy,

Thank you for taking the time last week to have a discussion with me regarding disaster management. We spoke with our client CGI and DCMC, and we would like to request a meeting with Jarrod Agen. CGI with DCMC Partners have participated in the disaster recovery of every major US event in the last 10-15 years. CGI works closely with DCMC on disaster recovery. CGI's expertise includes experience with Hurricane Katrina, Superstorm Sandy, and the major flooding in Iowa. As you likely know, CGI also does extensive work with the state to replace the MAIN system with the new Sigma project. CGI also partners with DHHS to provide IT services for Medicaid eligibility and the Healthy Michigan Plan.

The meeting would be with Jon Jasper, Regional Account Executive, and John Stephan, Regional Government Relations Director for CGI. Additionally, Drew Sachs from DCMC Partners would be in attendance, he headed the NJ response to Superstorm Sandy. Nicole Nystrom or myself would be there from Midwest Strategy Group. Additional background on the services CGI provides can be found here: <http://www.cgi.com/sites/default/files/brochures/cgi-natural-disaster-recovery-services-factsheet.pdf>

The meeting topic would be disaster recovery and management assistance. Recognizing how busy Jarrod is, we are flexible on scheduling times for this meeting. Thanks again.

Regards,

Mike

**Mike Compagnoni**  
*Government Relations*

---

Midwest Strategy Group  
101 S. Washington Square,  
Suite 620  
Lansing, MI 48933

Telephone: 517.853.0537  
Facsimile: 517.853.0556



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**From:** Cody Beausejour <codybeausejour@gmail.com>  
**Sent:** Tuesday, January 26, 2016 9:33 PM  
**To:** Calley, Brian (GOV); Sachs, Tori (GOV)  
**Subject:** Flint Water Solution Concept Design  
**Attachments:** Concept Design For Distiller.jpg

Dear Lt. Governor Calley, and staff of the Michigan State Executive Branch.

As you can see in the drawing I have provided, Lead contaminated water will be extracted into a distillery machine from the Flint water main. The lead contaminated water is distilled, and clean drinkable water is collected. The clean water will be distributed in the same manor as bottled water is at the distribution centers.

Currently, The state of Michigan and other donors are provided bottled water for residents of flint. The costs to provide enough drinking water are over 50,000\$ a day. In a years time, that is over 18 million dollars a year. (50,000 x 365 = 18,250,000)

Research should be done to estimate the cost of building the water distillerie(s). I am more than happy to do more independent research on this. I would like to request a meeting with the Governor and, or Lt. Governor, or a member of their staff to discuss further details.

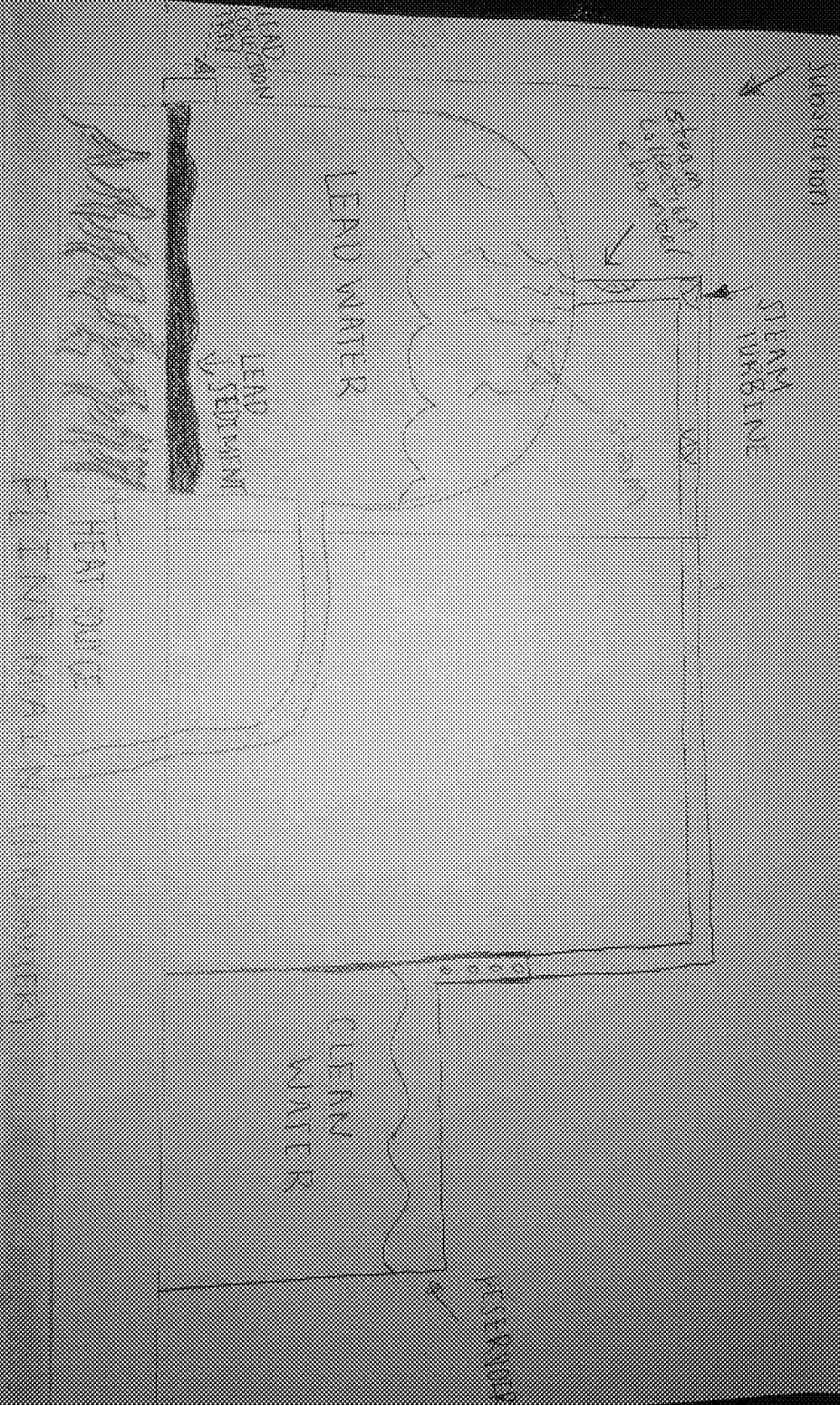
Thank you for reading, Cody Micheal Beausejour.

Recipients:

Lt. Governor Brian Calley ([calleyb11@@michigan.gov](mailto:calleyb11@@michigan.gov))  
External Affairs Advisor, Ms. Tori Sachs ([SachsT@michigan.gov](mailto:SachsT@michigan.gov))



# Concept Design



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**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 11:09 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: RDNs fight lead with nutrition  
**Attachments:** MSUE\_Fight\_Lead\_With\_Nutrition[9].pdf

Should this info go to MDHHS?

---

**From:** Calley, Brian (GOV)  
**Sent:** Tuesday, January 26, 2016 11:08 AM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** FW: RDNs fight lead with nutrition

**From:** Bethany Thayer [<mailto:bethanythayerrrd@gmail.com>]  
**Sent:** Sunday, January 24, 2016 3:33 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Subject:** RDNs fight lead with nutrition

Dear Lt Governor Calley,

During the January 19, 2016 State of the State address, Governor Snyder discussed a number of recommendations that needed to be implemented in order to address the water crisis in the City of Flint. One recommendation was the importance of nutrition education to the children and adolescents exposed to lead based water.

The **Michigan Academy of Nutrition and Dietetics**, a professional organization of over 2,000 Registered Dietitian Nutritionists (RDN), appreciated the governor's recognition that proper nutrition guidance for those exposed to lead is vital to protect the health and well being of the children and adolescents in Flint. The proper food and nutrients that are consumed can assist in limiting the ill effects to children and adolescents who have been exposed to lead. Exposure to even low levels of lead over time impacts a child's development, resulting in learning and behavior problems.

We are especially proud of our members in the Flint area who are currently working to improve the health of those children and adolescents. Those RDN's and other nutrition professionals in WIC, the Michigan State University Extension and the health department are assuring that those at risk receive the evidence based nutritional guidance to consume nutrient-rich, well-balanced meals and snacks. Other RDN's at local hospitals and health systems are also available as needed and are valuable

resources in assisting parents, caregivers, children and adolescents who are in need of fresh and healthy foods.

If you are aware of any Flint residents in need of nutrition resources, meal and snack planning, nutrition assessment and medical nutrition therapy in the treatment of adverse lead exposure, please contact the Michigan Academy of Nutrition and Dietetics office at 586-774-7747 or via e-mail: [mda.execdir@sbcglobal.net](mailto:mda.execdir@sbcglobal.net). Our Executive Director will provide you with the name and contact information of nutrition professionals in your district who can assist you.

For your reference and distribution, we have attached a handout entitled "Fight Lead With Nutrition" that is currently being provided to a number of Flint residents. Please feel free to distribute to those in your district who are affected by this ongoing crisis.

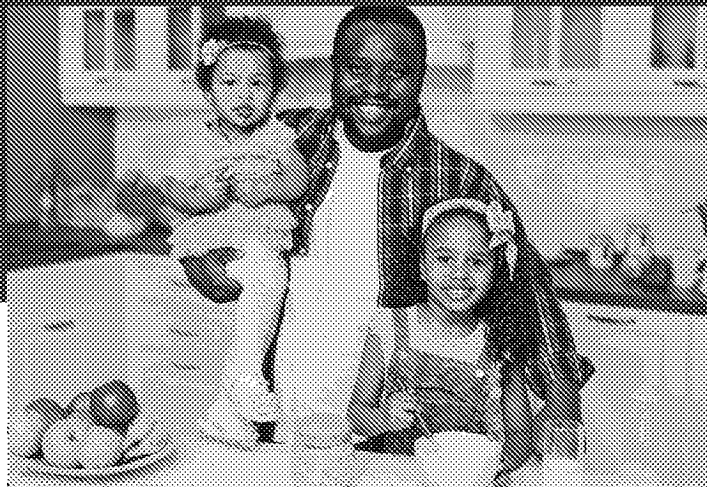
In good health,

Bethany Thayer, MS, RDN, FAND

President, Michigan Academy of Nutrition and Dietetics

[www.eatrightmich.org](http://www.eatrightmich.org)

# FIGHT LEAD WITH NUTRITION



The foods we prepare and serve to our families can help limit the effects of our kids' exposure to lead! Three steps you can take in choosing and preparing food can make a difference:

1. When preparing food, be sure to wash and cook it with filtered water.
2. Serve your kids small, healthy snacks between meals.
3. Serve foods that are high in a few really important nutrients: **iron, calcium and vitamin C!**



## LEAD FACTS

Lead isn't good for anyone's health and is especially bad for small children. Keep your family lead-safe by avoiding contact with it. If you live in the city of Flint, or get water from the city's water system, be sure to use an NSF-certified filter for drinking, cooking and mixing baby formula. Make sure to change the filter cartridge by the date printed on the package. Remember that you and your children can also be exposed to lead from old paint, dust, dirt, pottery, make-up, toys and some home remedies.

If you have any concerns about lead or your child's diet, talk with your doctor.

## LEAD-FIGHTING NUTRIENTS

### CALCIUM

Calcium keeps your bones strong and the lead out! Calcium-rich foods include:

- \* Milk and milk products, like cheese and yogurt
- \* Green leafy vegetables, such as spinach, kale, and collard greens
- \* Calcium-enriched orange juice
- \* Tofu
- \* Canned salmon and sardines (both with the bones in)

### IRON

Iron keeps too much lead from getting into your body. Foods high in iron include:

- \* Lean red meats, fish (tuna and salmon) and chicken
- \* Green leafy vegetables, such as spinach, kale and collard greens
- \* Iron-fortified cereal, bread and pasta
- \* Dried fruit, such as raisins and prunes
- \* Beans

### VITAMIN C

Vitamin C works with iron to keep too much lead from getting into your body. Good sources of vitamin C include:

- \* Citrus fruits, like oranges and grapefruit and their juices
- \* Tomatoes and tomato juice
- \* Peppers
- \* Other fruits like kiwi, strawberries and melons



## LEAD RESOURCES

- \* Genesee County Health Department Lead Program: [www.gchd.us](http://www.gchd.us); phone: 810-257-3833
- \* Michigan Department of Environmental Quality (DEQ): [www.mi.gov/FlintWater](http://www.mi.gov/FlintWater)
- \* Michigan Department of Health and Human Services (DHHS) Childhood Lead Poisoning Prevention Program: [www.michigan.gov/lead](http://www.michigan.gov/lead); phone: 888-322-4453
- \* U.S. Centers for Disease Control and Prevention (CDC): [www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)
- \* U.S. Environmental Protection Agency (EPA): [www.epa.gov/lead](http://www.epa.gov/lead)

## WHERE TO GET HELP

### Food Assistance in Genesee County

#### Commodities Food Program

This supplemental food program is designed to help low-income pregnant or breastfeeding women, new mothers up to one year after birth, infants, children up to age 6, and people aged 60 and up. Food is provided once a month. Call 810-789-3746 or 810-789-4409 for details.

#### Double Up Food Bucks (DUFEB)

The DUFEB program matches your SNAP benefits when you buy Michigan-grown fruits and vegetables. For example, if you buy \$10 worth of Michigan produce, you'll get an extra \$10 to buy more fruits and veggies!

You can use this program at:

- \* Flint Farmer's Market, 300 East 1st Street, Flint, phone 810-232-1399, open year round
- \* Landmark Food Center (two locations) 206 West Pierson Road, Flint, phone 810-789-7311, OR 4644 Fenton Road, Flint, phone 810-238-2972, call to check dates and hours for both locations.

#### The Emergency Food Assistance Program (TEFAP)

TEFAP provides healthy foods to qualified families and individuals once every 4 months. Call GCCARD at 810-789-3746 or 810-789-4409 for details.

#### Food Bank of Eastern Michigan

The Food Bank of Eastern Michigan offers many food assistance programs. Call 810-239-4441 for details.

#### Supplemental Nutrition Assistance Program (SNAP)

The SNAP program (formerly called *food stamps*) provides low-income

residents with money to purchase food, including:

- \* Fruits and vegetables
- \* Breads and cereals
- \* Dairy, meat, fish and poultry

You're also allowed to buy seeds and food-producing plants with your SNAP benefits to grow your own food. Apply for SNAP at [www.mibridges.michigan.gov](http://www.mibridges.michigan.gov) or call the Genesee County Department of Health and Human Services (DHHS) at 810-760-2200.

#### WIC (Women, Infants & Children)

The WIC program supplies extra food for low-income pregnant or breastfeeding mothers, infants and children up to 5 years old who are at nutritional risk. Foods provided through WIC include:

- \* Infant formula and iron-fortified cereals
- \* Fruits and vegetables rich in iron, calcium and vitamin C
- \* Whole grain bread and cereals
- \* Eggs, milk, cheese and yogurt

To apply for WIC, call 800-262-4784 (toll-free) or 810-237-4537.

#### WIC-Project Fresh

If you receive WIC benefits, you're eligible to receive Project Fresh coupons to buy locally grown fruits

and veggies! This program runs from June 1 through October 31 each year. For more information contact Genesee County WIC at 810-237-4537 or MSU Extension at 810-244-8500.

### Additional Genesee County Resources

#### 211

- \* Service connects Genesee County residents to community resources including food, transportation, education and health care
- \* Connects residents to sources of water filters and replacement cartridges
- \* Locally funded by United Way Genesee County.
- \* Phone 211
- \* Web: [www.211.org](http://www.211.org)

#### Flint Water Department

- \* Offers free or low-cost water testing
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#### Michigan State University Extension

- \* Offers free nutrition education classes
- \* Soil testing for lead
- \* Phone 810-244-8500

### Sources

- Iron Deficiency Anemia Prevention: Diseases and Conditions*. Mayo Clinic. (2014). Retrieved from <http://www.mayoclinic.org/diseases-conditions/iron-deficiency-anemia/basics/prevention/con-20019327>
- Lead and a Healthy Diet: What You Can Do to Protect Your Child* [EPA-747-F01-004]. U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. (2001). Retrieved from <http://www2.epa.gov/sites/production/files/documents/nutrition.pdf>
- Learn About Lead* [overview and fact sheets]. U.S. Environmental Protection Agency. (2015). Retrieved from <http://www.epa.gov/lead/learn-about-lead>
- Nutrition and Lead Poisoning Prevention*. Nebraska Department of Health and Human Services. (2011). Retrieved from <http://dhhs.ne.gov/publichealth/Pages/LeadNutrition.aspx>
- Soil Lead: Testing, Interpretation, and Recommendations*. University of Massachusetts Amherst, Soil and Plant Tissue Testing Laboratory. (n.d.). Retrieved from <https://soiltest.umass.edu/fact-sheets/soil-lead-testing-interpretation-recommendations>

### Acknowledgments

These materials were partially funded by the United States Department of Agriculture (USDA) Supplemental Nutrition Assistance Program Education (SNAP-Ed) by way of Michigan State University Extension and also partially by Hurley Children's Hospital.

Produced by ANR Communications for MSU Extension (<http://msue.anr.msu.edu/>).

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HURLEY  
CHILDREN'S  
HOSPITAL



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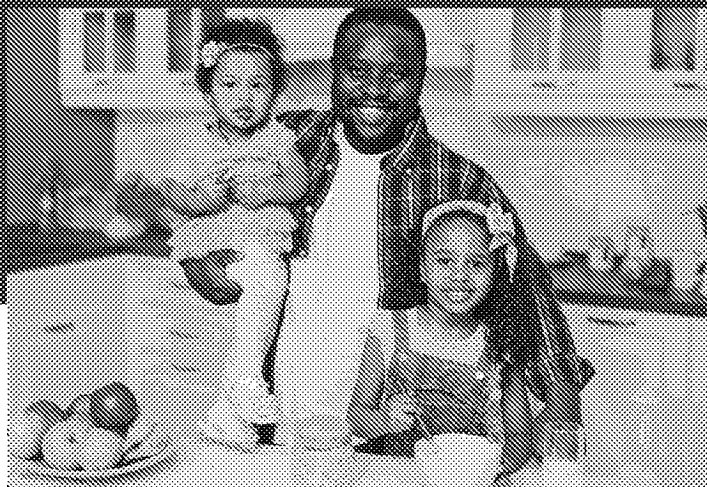
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- \* Offers free nutrition education classes
- \* Soil testing for lead
- \* Phone 810-244-8500

### Sources

- Iron Deficiency Anemia Prevention: Diseases and Conditions*. Mayo Clinic. (2014). Retrieved from <http://www.mayoclinic.org/diseases-conditions/iron-deficiency-anemia/basics/prevention/con-20019327>
- Lead and a Healthy Diet: What You Can Do to Protect Your Child* [EPA-747-F01-004]. U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. (2001). Retrieved from <http://www2.epa.gov/sites/production/files/documents/nutrition.pdf>
- Learn About Lead* [overview and fact sheets]. U.S. Environmental Protection Agency. (2015). Retrieved from <http://www.epa.gov/lead/learn-about-lead>
- Nutrition and Lead Poisoning Prevention*. Nebraska Department of Health and Human Services. (2011). Retrieved from <http://dhhs.ne.gov/publichealth/Pages/LeadNutrition.aspx>
- Soil Lead: Testing, Interpretation, and Recommendations*. University of Massachusetts Amherst, Soil and Plant Tissue Testing Laboratory. (n.d.). Retrieved from <https://soiltest.umass.edu/fact-sheets/soil-lead-testing-interpretation-recommendations>

### Acknowledgments

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MICHIGAN STATE  
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HURLEY  
CHILDREN'S  
HOSPITAL

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**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 4:00 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company

**From:** Chase Bonhag [<mailto:cbonhag@illinoisventures.com>]  
**Sent:** Wednesday, January 27, 2016 3:54 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Subject:** Assisting Flint Michigan with Lead in Water Crisis

**ANDalyze (Champaign, IL) has an innovative product solution for testing drinking water for lead that can dramatically reduce the time and effort in addressing the Flint, Michigan water quality issue.**

Dear Governor Snyder,

I appreciate the quick response from your office, clearly your office is working vigorously to find a solution to the crisis in Flint. I'm a Michigan resident from Traverse City working for a Venture Capital firm, IllinoisVENTURES, in Champaign, IL. One of our portfolio companies, ANDalyze, has a technology that can dramatically reduce the time and effort in addressing the Flint water quality issue.

Rather than talk about what happened, let's focus on solutions.

ANDalyze has a product for the detection and measurement of lead (and other metals) in drinking water, offering quick and accurate on-site testing for lead in water within US EPA regulatory limits.

The ANDalyze products are readily available and were validated by the US EPA in 2014 for their effectiveness to test for lead concentrations in drinking water within the US EPA limit and are being sold around the world for just that purpose. We recently assisted the Hong Kong water authority with this same issue during their emergency last fall. ANDalyze's patented products are a new innovation that came out of the laboratories of the University of Illinois several years ago. The development of the technology has been, and continues to be supported by grants from the State of Illinois, US EPA, US DOE, NSF and NIH.

The advantage of the ANDalyze product is that it is portable, very easy to use, and accurate to below the US EPA regulatory limit and tests within two minutes (very quick compared to sending samples to a lab). This product can give the Flint community and water utility a fast and effective way to test water anywhere (schools, homes, hospitals Etc.) and avoid the delays, complexity and high cost of sending each sample to a central chemistry lab.

I've attached a product flyer and several links below for further information on ANDalyze and its product.

Additionally I would like to note that ANDalyze was awarded a \$1 million grant for the US DOE to commercialize an **automated monitoring system** that can be deployed within the water network to automatically monitor drinking water for the concentration of lead in the water, thus creating continuously available data on the lead levels of the water and is designed to alarm water utility operators if the lead levels are too high. We are looking to pilot test this system in the coming months.

At the bottom of the email you will find product information on ANDalyze for your office to review. I'm reaching out to introduce a product that can truly help you solve the issues in Flint and prevent the chance of an outbreak like this to happen in any other city in Michigan.

I'd appreciate the opportunity to speak about how ANDalyze can support your efforts. You can reach me by email or phone at (231) 590-4955, let's set up a time to speak within the next week to discuss the specifics on how ANDalyze can help you solve Flint's crisis.



I look forward to hearing from you.

Sincerely,

Chase

Chase Bonhag

IllinoisVENTURES

**ANDalyze Inc. (product information)**

- Website: [www.andalyze.com](http://www.andalyze.com)
- Product overview (AND1100): <https://www.youtube.com/watch?v=d2TGoEyCbto>
- Detailed product testing video (AND1100) : [https://www.youtube.com/watch?v=YHHKa2C\\_H4M](https://www.youtube.com/watch?v=YHHKa2C_H4M)
- US EPA testing results: (full 148 pg. report - [US EPA ETV Report](#) )
- US EPA testing results: (Short summary - <http://andalyze.com/wp-content/uploads/ANDalyze-Summary.pdf> )
- Recent US DOE grant award for Automated Lead Monitoring System: [Press release](#)

---

**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 4:17 PM  
**To:** Sachs, Tori (GOV)  
**Cc:** Adamczyk, Lynne (GOV)  
**Subject:** FW: VENTRA Group, LLC Overview and Request to Meet

Sending your way Tori. This also went to Rich, Harvey, and Steve Arwood...

Lynne- for your process as well

---

**From:** George Jackson [<mailto:george@ventrailc.com>]  
**Sent:** Wednesday, January 27, 2016 4:07 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Cc:** Baird, Richard (GOV) <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>; Steudle, Betsy (MDOT) <[SteudieB@michigan.gov](mailto:SteudieB@michigan.gov)>; Arwood, Steve (MEDC) <[arwoods1@michigan.org](mailto:arwoods1@michigan.org)>; Hollins, Harvey (GOV) <[hollinsh@michigan.gov](mailto:hollinsh@michigan.gov)>  
**Subject:** VENTRA Group, LLC Overview and Request to Meet

Dear Governor Snyder,

Please see the attached overview letter, which provides a description of my new company and partners, and the services we can provide to the State of Michigan as it relates to its real estate development needs.

Sincerely,

George W. Jackson, Jr.

President

---

**From:** Ackerman, Darin (GOV)  
**Sent:** Wednesday, January 27, 2016 4:58 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint

T-Rex,

Who should I funnel this type of stuff to? If his credentials are as outlined below and he's willing to help on a volunteer basis, someone should at least touch base with him.

Thanks,

Darin Ackerman, Deputy Director  
Legislative Affairs Division  
Office of Governor Snyder  
State Capitol  
Lansing, MI 48913  
Phone: (517) 241-3950

---

**From:** Derek Sova [<mailto:Dsova@senate.michigan.gov>]  
**Sent:** Friday, January 22, 2016 2:55 PM  
**To:** Ackerman, Darin (GOV) <[ackermamd3@michigan.gov](mailto:ackermamd3@michigan.gov)>  
**Subject:** Flint

Hi Darin,

We received an email from a constituent of ours who used to be the executive secretary of the old Michigan Toxic Substance Control Commission (transferred to DNR in the 80s) who would like to offer some suggestions for steps moving forward re: Flint. Is there an official effort underway to come up with some long-term solutions to deal with those who may have been affected? Is there a contact person for that effort? He's in his mid-seventies, but he has a PhD in Environmental Epidemiology, he's dealt with public health issues like this before, and he's willing to share his experience. Couldn't hurt to hear to put him in touch with the right people.

Thanks,

**Derek Sova**  
Chief of Staff  
Sen. Tonya Schuitmaker  
517-373-0793  
[dsova@senate.mi.gov](mailto:dsova@senate.mi.gov)

---

**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 6:25 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company- solution

Eric Brown  
2800 East Central Avenue, Suite 1010  
Phoenix, AZ 85004  
602. 625. 2091  
[Eric.brown@carbonpipe.com](mailto:Eric.brown@carbonpipe.com)

From a personal standpoint we admire your dedication working to solve this tragic public catastrophe. We at Pipe Reconstruction, Inc., would like to offer our help in any way we can. In 1997 the KPFF Advanced Technology & Industrial Group and PRI invented the first application of a carbon fiber / epoxy resin composite to be used in the repair and strengthening of buried piping systems for the nuclear power plant industry. With almost 20 years of testing, approvals and hands-on experience, we have perfected our proprietary Carbon Composite Wrap application for potable and non-potable pressurized and non-pressurized pipe repair and replacement to a standard far above any other carbon fiber composite company.

To put it simply, we can line the inside of the existing lead pipe with a carbon fiber / epoxy composite that is not only suitable for potable water, but will be stronger and last longer than the original pipe. Our hand layer or inversion process has been perfected for pipes ranging in size from 4 to 144 inches in diameter, with pressures as high as 400 psi. PRI has produced, installed or managed the installation of more than 1.6 million square feet of carbon fiber for over 500 reconstruction and repair engagements on pipes around the world.

We would like to present your staff with information on our company and discuss some potential repair options which could begin immediately. Please visit our website at [www.pipereconstruction.com](http://www.pipereconstruction.com) to see examples of our work.

Sincerely,

Eric Brown  
Pipe Reconstruction, Inc.  
602-625-2091  
[eric.brown@carbonpipe.com](mailto:eric.brown@carbonpipe.com)  
[www.pipereconstruction.com](http://www.pipereconstruction.com)  
Laura Stoken  
Manager, Constituent Relations  
Executive Office of the Governor, Rick Snyder  
517.335.7858

---

**From:** GOV Scheduling  
**Sent:** Monday, February 01, 2016 12:13 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint Water Help  
**Attachments:** Cover letter And Resume With Attachments for Gov Snyder 2016.pdf

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**From:** Edward G. Wenz, Jr. [<mailto:edward@leadrenovatortraining.net>]  
**Sent:** Monday, February 01, 2016 10:29 AM  
**To:** GOV Scheduling <[GOVScheduling@michigan.gov](mailto:GOVScheduling@michigan.gov)>  
**Subject:** Flint Water Help

Feb 1, 2016

Governor Rick Snyder -

I am writing this letter and have attached a cover letter and resume for myself for your review. I would like to help you, City of Flint, Flint residents, & the State of Michigan with this Flint Lead Water issue.

I feel with my unique background, knowledge, & skill set I would be helpful in working to find the right resolution to the crisis. I feel with my resume, I will be able to assist in all areas of the work that needs to be done. And come up with and manage the proper implementation of a "fix" to this issue. There are alot of people helping you but I'm not sure with the knowledge that I possess from the construction, lead inspections/risk assessments, water testing, housing rehab, water & sewer infrastructure, and safety needs of the public and workers.

Please feel free to contact me at anytime.

Sincerely,

Ed Wenz

*Edward G. Wenz, Jr.*  
Contractors Training Institute, LLC  
Lead Renovator Training, LLC  
CTL - Consulting, Testing, & Inspections, LLC  
Michigan Builders Training & Builders Con-Ed  
248-698-6900 ~ Fax# 248-694-2001  
Construction/ Environmental Consulting & Education

# Edward G. Wenz, Jr.

February 1, 2016

To Governor Rick Snyder:

I am writing in letter to offer my services to help you, the State of Michigan, & the residents of Flint my professional services and background to help with this water situation that has impacted the community.

I am currently an State of Michigan and EPA Trainer for the new RRP Rule, a State of Michigan Trainer for Lead Abatement (Worker, Supervisor, Inspector, & Risk Assessor), State of Michigan Trainer for Asbestos (Supervisor & Inspector), and State of Michigan Trainer for builders / contractors handling pre-lic classes, con-ed, osha, mold, & asbestos awareness. I am the owner of a Michigan Proprietary School for Builders Courses. I also own CTI – Consulting, Testing, & Inspections, which is a firm that inspects home, write rehab specifications, lead lead inspections & lead risk assessments, asbestos surveys, federal programs management, and more.

I previously worked with City of Pontiac Federal Programs as the Federal Programs Construction Manager. I handled many areas for the Federal Programs including, demolition of homes for emergency & scheduled programs, water/sewer/electrical/gas disconnects with a survey of all to document for future use, homeowner rehab, NSP rehab, board up, lawn mowing & debris clean ups, spec writing, training of contractors for the city, RFP's for many programs, and much more.

I have previously worked for Macomb County Planning Dept where I was a Rehabilitation Specialist with the Macomb County Rehabilitation Program, and I feel that my background was well suited for this position. In my position as a Rehabilitation Specialist / Building Inspector, I inspected homes for code violations, HUD HQS, and deficiencies in the building, plumbing, hvac, and electrical trades. I also write up specifications and bid out new rehabilitation projects, as well as monitor, inspect work upon completion, and process billings for housing rehabilitation projects. I wrote the county rehab contractor manual and designed and wrote a new inspection report, along with making it a computer application.

In addition to my experience a contractor, trainer, and with Pontiac & Macomb County, I have a residential builder's license, I hold licenses with the State of Michigan as a Lead Supervisor and Lead Inspector / Risk Assessor, Asbestos Supervisor Contractor, Asbestos Inspector, Mold Remediation Specialist, Certified Indoor Air Quality Tech, and I have owned my own construction firm since 1995. The construction company I owned had 50 employees contracting work in new construction, remodeling, additions, fire restoration, demolition, & commercial contracting. My firm had contracted installation programs for Home Depot and Lowe's, along with commercial work in retail, commercial, and institutional buildings in various counties. I previously sat on the Zoning Board of Appeals for St. Clair Shores, and I also have worked with local attorneys as an expert witness for homeowners with legal matters regarding construction.

I would consider it a great opportunity to work for / with the State with my skills and unique background that very few have with the well rounded knowledge of all aspects of the issues and how to fix, bid, & manage for the Flint Water issue. I would like to provide any other details as to my background & knowledge and/or the fix as I see it at your request. I will make time to meet with you anytime.

Thank you for taking the time to consider my resume and application to help. I look forward to speaking with you or your department.

#### References:

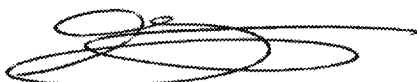
Kathleen "Casey" Hines – HUD NSP Rep = 734-732-3575

Jill Robinson – Michigan Land Bank Rep = 517-242-6944

Peter Agnello – Varsity Floors = 586-929-0680

- More available upon request

Thank you for your time and consideration,



Edward G. Wenz, Jr.  
*Enclosure – Resume*

# Edward G. Wenz, Jr.

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## **EMPLOYMENT OBJECTIVE:**

To utilize my past experience & knowledge to gain personal growth & advancement in the construction field.

## **WORK EXPERIENCE:**

2010 – Present **Contractors Training Institute, LLC**

**Lead Renovator Training, LLC ~ Member / Trainer / Instructor**

**Michigan Builders Training, LLC & Builders Con-Ed, LLC**

**CTI – Consulting, Testing, & Inspections, LLC**

- Trainer for EPA Certified Renovator course, Mold Remediation, OSHA Safety, Asbestos
- Trainer of Lead Abatement Supervisor, Lead Inspector, Risk Assessor, Worker
- Trainer / Instructor for Michigan 60 Hr Builders Pre-Licensure Class & Builders Con-Ed
- Trainer for Asbestos Supervisor Contractor & Inspector Courses
- Built Online School for Contractor Training, Along with specialty websites & phone apps
- CTI-Consulting, Testing, & Inspections division of firm handling lead, asbestos, mold, & project management
  - Work for Macomb County Rehab program as rehab specialist, spec write, inspector
  - Work for Habitat For Humanity Macomb & Detroit as spec writer, rehab specialist, inspector, & lead inspector/lead risk assessor

1994 – Present **Winner Investment, Inc. ~ Owner**

- Established a property management company that currently owns and manages six (6) residential rental units throughout Macomb County. This firm owned and managed over 38 properties including commercials and residential apartments in previous years.
- Also, DBA Michigan Inspection Consultants, LLC; inspection & consulting services

May 2011 – Feb 2012 **City of Pontiac Federal Programs**

- Construction Manager / Rehab Specialist for Federal Programs HUD Grants & NSP
- Inspections of residential homes for code and write specification for all work, HOME Funds Implemented Programs for: Emergency Board-Up, Lawn ordinance mowing, Dumping clean-ups,
- Coordinated restart of NSP program for City to meet all HUD requirements, completed work that was on hold
- Demolition Program for Emergency & Scheduled demos, Coordinated all disconnects for water/sewer/electrical/gas for Michigan Land Bank NSP2 & CDBG. Along with surveying all water & sewer lines for mapping utilities for future use.

2006 – 2010 **Mini Dumpsters, LLC ~ Member**

- Established a waste & recycling firm = SOLD Firm
- Company was established with one dump trailer, when sold the business had 30 trailers, 18 roll off boxes, 3 trucks, 2 frontload trash trucks with revenue of \$500K per year

2003 – 2008 **~ Macomb County Rehabilitation Specialist I**

**Dept. of Planning & Economic Development**

- Performed functions of Rehabilitation Specialist / Building Inspector
- Managed rehabs for Lead Inspection & Lead Risk Assessments on work for county.
- Designed and wrote county housing inspection report
- Wrote county rehab program contractor manual
- Trained contractors in work practices, lead work, & processes

1998 – Present **At Home Services, LLC ~ Owner**

- Established general contracting company for residential work. *Inactive.*

2003 – 2007 **RW Builders, LLC ~ Member**

- Established building & development partnership firm, building and renovating homes in Macomb, Oakland, & Wayne Counties. Company was dissolved as of December 2007.
- Built new homes as in fill lots in various cities
- Rehabbed homes in various city for flips

1996 – 2003      **Winner Properties, Inc. ~ Owner**

- Established a full service construction company, diversifying in new home construction, commercial build outs, gymnasium wood floor installs, rehabilitation work, design & build, home inspections, insurance reconstruction, lead paint and asbestos abatement. Trained employees' in work practices, install techniques, lead safe work practices, work safety training, fire safety, hazard communication plan, respiratory program, etc...
- Winner Properties was the largest Home depot installation firm in Michigan and surrounding states handling 33 stores in Michigan for door installation program. Our firm also wrote the Anderson Window install program for Home Depot.
- Winner Properties also worked for Home Depots EXPO Design Center Stores. Our firm handled 3 stores for installation of kitchens, bathrooms, tile, stone, complete remodel work and design build work.
- Winner Properties was the largest Lowes installation firm handling 6 stores in Metro Detroit market. Our firm handled the door installation program for all 6 stores, handled the plumbing install program for 3 stores, and handled installation of tile & cabinets for 3 stores.

**Other Work Experience:**

- Licensed Associate Realtor
- Truck driver to waste hauling firm - Went on to open my own business
- Owner of Towing & Recovery Service – Built & Established Company & then Sold company
- Owner of Spring & Suspension Shop – Built & Established Company & then Sold company
- Machine Repair Technician for Expert Machine Repair – Went out to open my own business

**SKILLS, LICENSES, CERTIFICATIONS:**

- Licensed Builder
- Certified Lead Abatement Supervisor
- Certified Lead Inspector & Lead Risk Assessor
- Certified Licensed Asbestos Supervisor Contractor
- Certified Licensed Asbestos Inspector
- State of Michigan Certified Lead Trainer (Worker, Supervisor, Inspector, Risk Assessor)
- State of Michigan Certified Asbestos Trainer (Supervisor / Contractor & Inspector)
- US Environmental Protection Agency EPA RRP Trainer
- State of Michigan Certified Builders Pre-License Trainer
- State of Michigan Certified Real Estate Continuing Education Trainer
- State of Michigan Certified Insurance Adjuster Continuing Education Trainer
- Trainer in OSHA, Mold, Lead, Builders Initial & Con-Ed Classes, Asbestos
- Lifetime Approval By State of Michigan as Trainer for State Building Officials, Inspectors, & Plan Reviewers
- OSHA 10 Hour Trained
- Certified Mold Remediation Specialist
- Certified Home Inspector
- Former Realtor
- Driver License = CDL-A – endorsements C, CY, NT

**VOLUNTEER AND COMMUNITY INVOLVEMENT:**

- Michigan HBA Remodelers Council = Presenter / Trainer
- Michigan Historical Preservation Network = Trainer / Consultant
- Member of St. Clair Shores Zoning Board of Appeals = *Previous*
- Compassionate Ministries / Building Construction Advisor = *Previous*
- Habitat For Humanity Macomb – Construction Supervisor = *Previous*
- Housing Opportunities for Macomb = *Previous*



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## **Federal Programs Experience in HUD / NSP Work**

### **Macomb County Rehab Program – Rehabilitation Specialist**

- Inspect homes for rehabilitation program: building, plumbing, hvac, & electrical
- Inspect homes for both CDBG & HOME Funds for Code & HQS Standards
- Wrote the County Housing Rehabilitation Contractors Manual
- Updated the County Housing Rehab Manual
- SHPO Historical Section 1106 Clearances
- Environmental Reviews
- Wrote Specifications for work on homes – bring to code & emergency repairs
- Wrote specifications for lead abatement work / designed jobs
- Wrote estimates for all specifications on projects
- Ordered Lead Inspection & Risk Assessments as needed for projects
- Assessed projects for Lead Hazards and wrote specification for such work
- Met with homeowner to go thru work specifications and answered questions
- Inspected progress of work & final inspection of all work to meet specifications
- Completed final work on all homes and processed payments
- Wrote a complete rehab specification guide and put it into place for the County
- Designed a rehab tracking process and write up program for the County
- Ran projects for over 50 homes per year
- Projects ranged from rehabilitation, demo, and new build
- NSP Program: Worked to get basic acquisition and rehab outline established

### **City of Pontiac Federal Programs – Construction Manager**

- Wrote City Housing Rehabilitation Contractor Manual
- Updated / Revised the City Housing Rehab Manual
- Reviewed and worked for updating the Program Procurement Manual
- Wrote a complete rehab specification guide and put it into place for the City
- Designed a rehab tracking process and write up program for the City
- Organized and managed utility disconnects for demolition work. NSP & CDBG for City & NSP2 for MI Land Bank
- Worked with city on all water & sewer disconnects to be located and documented
- Organized and administered RFP's for: Rehab Contractors, Demo Contractors, NSP Developers, Realtor Services, Appraiser Services, Board Up Contractors, Lawn & Debris Clean-Up Contractors
- Bid Projects: Emergency Board Up Program, Lawn Mowing & Debris Clean Up Program, Rehab Program, Emergency Demo Program, 2012 Winter Demo Program, Asbestos Inspections, Lead Inspection & Risk Assessment Services
- Signed contract for Board Up Program & Managed over 350+ homes for board up
- Signed contract for Lawn & Debris Clean Up with 84 homes mowed, 1600 yards of debris removed
- Signed contract for Asbestos Inspections and administered over 200 sites
- Signed contract for Lead Inspection & Risk Assessment Services
- Inspected and wrote specs for 14 homes to satisfy HUD findings as a requirement to meet repairs for HUD
- Signed contracts for rehabilitation projects to repair homes required by HUD to clear findings – 14 sites
- Wrote Specs & Bid Emergency Demo Program; signed contracts with 6 contractors for work – demolished 20 homes in 10 days, completed work of 60 homes in 30 days
- Wrote Specs for 2012 Winter Demo Program – Pre-Bid Meeting held on 1/20 with 26 contractors, project is 150+
- Wrote / Revised Energy Upgrade specification for Lighthouse Path Bldg- Commercial Site
- Helped manage all SHPO applications for Historical Section 1106 Clearances on: Rehab & Demo work
- Worked with SHPO to add additional products to be listed as approved materials by State Architect to help have better specifications for rehab of homes.

- NSP Program:
  - Administration for: Acquisition Rehab, Demo, New Build
  - Managed & Signed for sale of properties for City to Developer
  - Administered & Managed all utility retirements / disconnect for Pontiac & Michigan land Bank
  - Revised specifications for NSP Developers to establish higher specifications = expectations
  - Worked to modify and help contractors get NSP 1 Program work done as the system was on hold
  - NSP Developers were guided to get projects back on track and now have done 19 homes in 6 months
  - Pontiac was on NSP slow spending list and now Pontiac is one of S/E Michigan top producers for HUD
  - City of Pontiac became top producing NSP Community in the last 6 months since Ed managed construction processes
  - Managed a huge Historical case and got clearance from SHPO in 30 minutes – 224 Ottawa, Pontiac
  - Managed Historical Sec 1106 Clearances for homes on NSP Program
  - Organized and managed RFP for Rehab Contractors for NSP 3 Program
  - Organized and managed RFP for Realtor Services for NSP Program
  - Wrote and managed RFP for Appraisal Services for NSP Program & sale of CDBG Property
  - Wrote & Bid out Specs for Alarm Systems on all NSP homes – Signed deal for developers
  
- CDBG & HOME Funds
  - Inspect homes for both CDBG, HOME Funds – Code & HQS Standards
  - SHPO Historical Section 1106 Clearances
  - Wrote specifications for work on homes – bring to code & emergency repairs
  - Wrote estimates for all specifications on projects
  - Ordered Lead Inspection & Risk Assessments as needed for projects
  - Met with homeowner to go thru work specifications answered questions
  - Inspected progress for work & final inspection of all work to meet specifications
  - Completed final work on all homes and processed payments

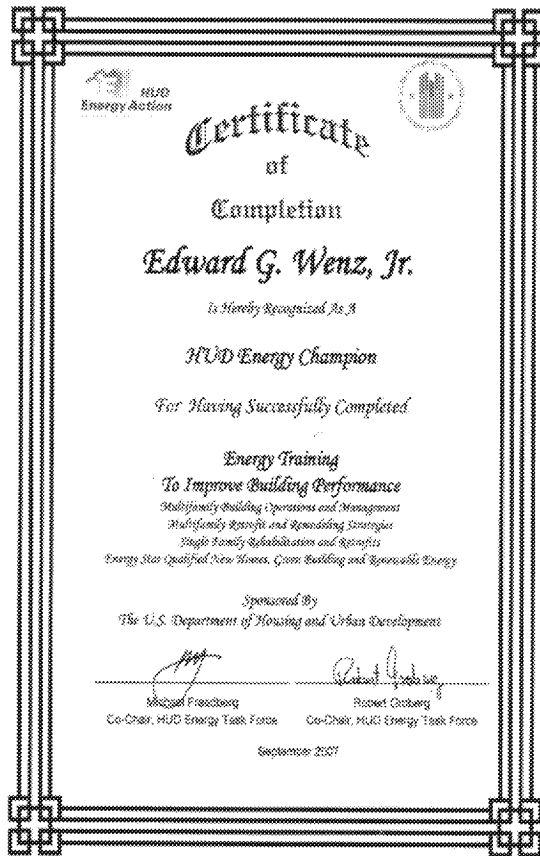
## Attachments – A

- Copy of Michigan Builders License

ROCK SNEYDER GOVERNOR	STATE OF MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS CORPORATIONS, SECURITIES & COMMERCIAL LICENSING BUREAU	L245595
RESIDENTIAL BUILDER LICENSE		
EDWARD GILBERT WENZ, JR 8756 TRENTON DR WHITE LAKE MI 48386		
PERMANENT I.D. NO. 2101186904	EXPIRATION DATE 05/31/2017	AUDIT NO. 2801332
THIS DOCUMENT IS ONLY VALID UNDER THE LAWS OF THE STATE OF MICHIGAN		

ROCK SNEYDER GOVERNOR	STATE OF MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS CORPORATIONS, SECURITIES & COMMERCIAL LICENSING BUREAU	L231721
RESIDENTIAL BUILDER COMPANY LICENSE		
- O. O. - EDWARD GILBERT WENZ, JR      INDV#: 2101186904		
WINNER INVESTMENT INC DBA/ MICHIGAN INSPECTION CONSULTANTS 8756 TRENTON DR WHITE LAKE MI 48386		
PERMANENT I.D. NO. 2102185620	EXPIRATION DATE 05/31/2017	AUDIT NO. 2789605
THIS DOCUMENT IS ONLY VALID UNDER THE LAWS OF THE STATE OF MICHIGAN		

## Attachment ~ B: Additional Training Certificates



CUSTOMER TRAINING

### Radiation Safety and Operation of Niton XRF Analyzers

This is to certify that **Edward Wenz** has successfully completed the one day Thermo Fisher Scientific Niton Analyzer Manufacturer's Training Course. The topics of this course include radiation safety, monitoring, device operation, and machine maintenance of the Niton XRF Analyzer.

(CIH's - The ABIH Awards 1 CM point, approval # 08-354)

Course date: May 5, 2011  
Location: Romulus, MI  
Certificate Number: 15:4700380000017rVh0

*Sophie Ling*  
Sophie Ling  
Radiation Safety Training Coordinator

*James Blute*  
James Blute, CHP  
Manager of Health and Safety

Thermo SCIENTIFIC



## Attachment ~ B: Additional Training Certificates



### EMSL ANALYTICAL, INC.

Certifies that

**Edward Wenz**

Has Completed Training In

**Mold, Indoor Air Quality and IH Sampling**

EMSL Certificate No. 70016695

Course Date: 98/11/2015

Granted: 98/11/2015

Sponsored by:

EMSL Analytical, Inc.  
200 Route 130 North  
Cinnaminson, NJ 08077  
Phone: (800) 220-3675  
Fax: (856) 786-5875  
[www.emsl.com](http://www.emsl.com)

**Jason Dobranic, Ph.D.**

Vice President of Microbiology and Life Sciences

Environmental, Mold, Bacteria, IAQ, Asbestos, Lead, Forensic and Materials Testing Since 1981



### EMSL ANALYTICAL, INC.

#### Credits and Continuing Education

Indoor Air Quality/Industrial Hygiene Workshop

on

8/27/15

ABIH-Compliant  
ACAC - 8.0 Credits  
BOMI - 8.0 Credits  
FL DBPR - 7 Credits  
HCRC - 1.0 Credit  
Inter NACHI - 8.0 Credits  
NAHI - 8.0 Credits  
ASHI - 8.5 Credits

CRBOH - 1 maintenance point  
NYS Dept of State Home Inspectors  
CRBOH - 1 MP  
NJ Site Remediation Professional Licensing  
Board - 4 TCEs  
NEHA - 6.5 CEC's  
TN Home Inspector Licensing Board - 8 hours

CAHPI  
OAH - 7 CEUs  
CAHPI/BC - 7 MRCs  
CAHPI Alberta - 7 MRCs  
Approved by Florida State  
DBPR 7 Credit Hours

Certificate # 70016695

Issued to: Edward Wenz

Environmental, Mold, Bacteria, IAQ, Asbestos, Lead, Forensic and Materials Testing Since 1981

## Attachment ~ C: Additional Certificates

United States Environmental Protection Agency

This is to certify that

Lead Renovation Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices pursuant to 40 CFR Part 402.107 in the following discipline:

Renovation, Refresher course (2 days)

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: October 27, 2015

NOT EPCB-100000-1-010  
Accreditation # OCT 14 2015  
Issued On

*Tony Bortz, acting for*  
Mark Klem, Chief  
Chemicals Management Branch

United States Environmental Protection Agency

This is to certify that

Lead Renovation Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices pursuant to 40 CFR Part 402.107 in the following discipline:

Renovation, Refresher course (2 days)

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: JUL 11, 2015

NOT EPCB-100000-1-010  
Accreditation # JUL 07 2015  
Issued On

*Mark Klem*  
Mark Klem, Chief  
Chemicals Management Branch

This is to attest that

has satisfactorily met the requirements of the Michigan Lead Abatement Act of 1995, and is hereby accredited as a

**Lead Renovator Training**

LEAD TRAINING COURSE PROVIDER

TCP number T-0049

This accreditation entitles the named persons to the rights and privileges afforded by the Act, as well as the authority to offer and provide the following training courses leading to certification of individuals engaged in regulated lead-based paint activities in the State of Michigan until August 31, 2016

Worker Initial	Worker Refresher	Supervision Initial	Supervision Refresher	Inspector Initial
Inspector Refresher	Risk Assessor Initial	Risk Assessor Refresher		

**MDHHS** Michigan Department of Health and Human Services

*Michael J. Bortz*  
Manager, EPH

August 21, 2015  
Date

20140001-0000  
Authority: P.A. 300 of 1995, as amended

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
CORPORATIONS, SECURITIES & COMMERCIAL LICENSING BUREAU

L263570

PROPRIETARY SCHOOL  
LICENSE

MICHIGAN BUILDERS TRAINING, LLC  
2525 AVON INDUSTRIAL DRIVE  
ROCHESTER HILLS MI 48309

PCB-ENVY 1.0 - 60  
8604000877

10/15/2015 2015  
06/30/2015

2017-00  
2309466

THIS DOCUMENT IS NOT A MODEL  
DO NOT REPRODUCE OR DISTRIBUTE

Sponsor Number  
744307

Issue Date  
11/25/2015

Expiration Date  
12/31/2016

State of Michigan  
Department of Licensing and Regulatory Affairs

Michigan Builders Training, LLC

has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1995, as amended, and Section 206 of Title II of the Toxic Substances Control Act to provide the following courses:

Contractor/Supervisor Initial\* Inspector Refresher\*  
Contractor/Supervisor Refresher\*

1312

United States Environmental Protection Agency

This is to certify that

Lead Renovation Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices pursuant to 40 CFR Part 402.107 in the following discipline:

Renovation, Refresher course (2 days)

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: October 27, 2015

NOT EPCB-100000-1-010  
Accreditation # OCT 14 2015  
Issued On

*Tony Bortz, acting for*  
Mark Klem, Chief  
Chemicals Management Branch

## Attachments – D:

- Copy of Environmental Licenses

Michigan  
Department of  
Community  
Health

**Edward G. Wenz Jr.**  
**Lead Inspector/Risk Assessor**  
**Lead Supervisor**

Cert. number **P-011130**

Annual fee due by **March 31, 2016**

*Appropriate refresher training and exam must be taken to renew this certification before March 31, 2016*

Healthy Homes Section

State of Michigan  
Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Inspector**

**Edward G. Wenz, Jr.**  
8756 Trenton Drive  
White Lake, MI 48386

Accreditation Number **A42527** Expiration Date **04/05/2016** DOB: **01/08/1966**

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1986, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered **114769**

State of Michigan  
Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Contractor/Supervisor**

**Edward G. Wenz, Jr.**  
8756 Trenton Drive  
White Lake, MI 48386

Accreditation Number **A42527** Expiration Date **04/05/2016** DOB: **01/08/1966**

This individual has satisfactorily met or exceeded the requirements of Section 205 of the Toxic Substances Control Act to be accredited in the above discipline.

Accreditation card is not valid if altered **114770**

**OSHA** Occupational Safety and Health Administration

21-004444959

This card acknowledges that the recipient has successfully completed a 10-hour Occupational Safety and Health Training Course in **Construction Safety and Health**

**EDWARD WENZ, JR.**

**Bryan Renaud** 06/12/2013

(Trainer name – print or type) (Course end date)

Michigan Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety and Health Administration  
Consultation Education and Training Division

This is to recognize that

**EDWARD WENZ, JR.**

Has completed a 10-Hour MIOSHA course in **CONSTRUCTION SAFETY AND HEALTH**

**Bryan Renaud** Approval # **AP 147** **6/12/13**  
(Instructor) (Date)

**LARA**

**MIOSHA Training Institute**

**MIOSHA** Macomb Community College

The MIOSHA Training Institute takes pleasure in presenting this **CERTIFICATE OF ATTENDANCE** to

**EDWARD WENZ, JR.**

for your active participation in **MIOSHA Construction 10-Hour Course**

awarding 1 CEU / 10 Contact Hours  
**JUNE 12, 2013**

**PATRICIA DUPRESNE** **BRYAN RENAUD**  
Instructor Course Director

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RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
BUREAU OF CONSTRUCTION CODES  
IRVIN J. POKE  
DIRECTOR

STEVEN H. HILFINGER  
DIRECTOR

April 2, 2012

**\*\*Lifetime Instructor Approval\*\***

Mr. Edward G. Wenz, Jr.  
8756 Trenton Drive  
White Lake, MI 48386

Dear Mr. Wenz:

Your application to renew your Instructor Approval has been processed by the Bureau of Construction Codes.

Pending review by the Construction Code Commission, the Bureau of Construction Codes has been granted permission to renew your approval under the following conditions:

1. Instructor standards as defined in the Rules for Act 54, 1986 are maintained.
2. Approval is granted indefinitely for the following categories: Administration, Communication, Plan Review, and Building (Specialty and Technical specific to lead, asbestos and mold related subjects).
3. The commission may withdraw the approval of an instructor when the approval was issued in error or was issued on the basis of incorrect information or when the instructor is found to be in violation of the rules.

The standards set forth in the rules for Act 54, 1986, state that program providers must "establish permanent records of student activities, including course title, and student attendance." Instructors have the responsibility for certifying attendance records. All participants must attend the entire program to receive credit.

**PLEASE NOTE:** Training programs must be approved by the Bureau of Construction Codes before registrants will receive their credited attendance hours. Before conducting training programs, a completed Education and Training Programs Approval Application (Form BCC-1052) must be submitted and approved by the Bureau of Construction Codes. Our attendance form can be found on our website at [www.michigan.gov](http://www.michigan.gov) under Forms then Building Division.

Instructor Identification Number: 2019

Sincerely,

*Kary L. Dare*

Kary L. Dare  
Building Division

KLD/ld

*Providing for Michigan's Safety in the Built Environment*

LARA is an equal opportunity employer  
Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.  
P.O. BOX 30254 • LANSING, MICHIGAN 48908  
[www.michigan.gov/bcc](http://www.michigan.gov/bcc) • Telephone (517) 241-8302 • Fax (517) 241-9570





RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
LANSING

STEVE ARWOOD  
DIRECTOR

February 15, 2013

Michigan Builders Training, LLC  
Edward G. Wenz Jr.  
2230 Avon Industrial Dr  
Rochester Hills, MI 48309

Dear Mr. Wenz:

RE: **Sponsor #480**

Your application as a sponsor for the 2013-2015 Calendar Years for real estate nondistance-learning continuing education has been approved. This approval begins on February 14, 2013 and expires on December 31, 2015. **The sponsor approval number above is important and must be referenced in ALL correspondence with the Department.** The following course(s) have been approved:

Course Name	Hours	"L" Course Number
Combo Lead, Asbestos, Mold Awareness	4hrs	M1474
OSHA Fall Protection	2hrs	M1475
EPA Certified Lead Renovator	4hrs	M1476
Mold Awareness -- What you should know	2hrs	M1477
OSHA Lead Awareness	2hrs	M1479
Asbestos Awareness	2hrs	M1478

This approval includes Edward Wenz as instructor(s).

A Schedule and Geographic Location of Classes BCS/LRE-004(01/09) must be submitted before you submit your verification of attendance. Sponsors must submit verification of attendance no later than 5 days after the completion of the course, per Rule 604(8).

Electronic filing of your continuing education course attendance roster file must be a tab delimited text file or an excel file that can be exported from any database you have.

You can find the Schedule and Geographic Location of Classes and Verification of Attendance excel spreadsheet on our website at [www.michigan.gov/bctestesting](http://www.michigan.gov/bctestesting) under the forms drop down menu. If you have any questions, please contact me at (517) 241-9231. Thank you for your cooperation.

LARA is an equal opportunity employer/program.  
Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

BUREAU OF COMMERCIAL SERVICES  
P.O. BOX 30018 • LANSING, MICHIGAN 48909  
[www.michigan.gov/lara](http://www.michigan.gov/lara)

FIS 414 (12/11) Department of Insurance and Financial Services

**Certificate Of Registration For A Continuing  
Education Program Of Study**

PSI  
Michigan CE  
3210 E. Tropicana  
Las Vegas, NV 89121

September 18, 2013

MICHIGAN BUILDERS TRAINING, LLC  
EDWARD G WENZ JR  
8756 TRENTON DRIVE  
WHITE LAKE, MI 48386

Edward Wenz:

Pursuant to Section 1204a(1) to 1204c(6) of the Insurance Code of 1956, as amended, MCLA 500.1204a(1) to 500.1204c(6), the Agent Education Advisory Council or its designee has reviewed the course materials, curriculum, and instructor credentials submitted and recommends to the Director's representative that this program of study be registered:

Course Name: **UNDERSTANDING THE HAZARDS OF HOUSING - COMBO LEAD, ASBESTOS, & MI**

Program of Study: **Property & Casualty**

Effective Date: **09-18-2013**

Number of Approved Hours: **3**

Provider Number: **0979**

Life/Health **0**

Property/Casualty **3**

Presentation Method: **Classroom**

Course Number: **63228**

National Designation Program: **No**

Expiration Date: **09-18-2015**

By the granting of this Certificate of Registration, the Director's representative approves the recommendation. The Director may, after Notice and Opportunity for a Hearing, withdraw the registration of a program of study, which does not maintain standards as determined by the Director for the protection of the public. Sales/Marketing hours = 0.

If you disagree with our decision, you may appeal by providing 2 copies of the requested information within 30 days of the date of this letter without any additional fees. However, if you appeal our decision, you must return this document and you may not offer this course until a final disposition is granted.

If you need to contact PSI, please email [MIINSURANCE@PSIEXAMS.COM](mailto:MIINSURANCE@PSIEXAMS.COM).

Sincerely,

PSI Continuing Education Unit



Michigan Department of Insurance and Financial Services

DIFS is an equal opportunity employer/program.

Auditory aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

Visit DIFS online at: [www.michigan.gov/difs](http://www.michigan.gov/difs) Phone DIFS toll-free at: 877-999-6442

---

**From:** Stoken, Laura (GOV)  
**Sent:** Monday, February 01, 2016 2:39 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Disaster Recovery Resilience Program

For your determination

---

**From:** Norman Stoerr [<mailto:nstoerr@aidrc.com>]  
**Sent:** Monday, February 01, 2016 2:36 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Cc:** Norman Stoerr <[nstoerr@aidrc.com](mailto:nstoerr@aidrc.com)>  
**Subject:** Disaster Recovery Resilience Program

Good afternoon Lt. Governor Calley,

I'm contacting you to provide you information concerning Adjusters International's Disaster Recovery Resiliency Program.

In 2010, The Department of Homeland Security (DHS) identified resiliency as a national priority. DHS intended to reduce the risk to critical infrastructure, public health and safety by fostering development of preparedness capabilities able to recover from naturally or man-made disasters to the nation's states and cities. Presidential Policy Directives 8 and 21 fully endorse this high level initiative.

Adjusters International (AI) can provide you a Disaster Recovery Resilience Program. Our web-based interoperable, multiple activation program, will assist the state in building a pro-active, readiness, response, recovery, and mitigations program for your state and counties.

AI's program can provide you a detailed risk analysis of the state's resources. Our program will also monitor your resource allocation of personnel, equipment and facilities not only on a daily basis, but also during an emergency situation or activation. The program provides this support using its GIS and real time situational analysis capability. AI's Disaster Recovery Resiliency Program will also guide a municipality, city or county from the initiation of an emergency response, through the closeout of a disaster declaration.

At your convenience, we would like the opportunity to speak with you and or members of your staff to further explain the Disaster Recovery Resilience Program.

Please contact me on the number or e-mail listed below to schedule a GoToMeeting. We will show you some features and further explain the benefits of our program.

Thank you very much sir,

*Norman T. Stoerr  
Disaster Recovery Resiliency Program  
Adjusters International DRC  
125 Wolf Road-Suite 214  
Albany, New York 12205  
Cell: 716-432-9414  
E-mail: [nstoerr@aidrc.com](mailto:nstoerr@aidrc.com)*



C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

January 29, 2016

Honorable Rick Snyder, Governor Michigan

Honorable Dr. Karen Weaver, Mayor

Honorable Elder Patrick W. Sanders, Pastor New Jerusalem Full Gospel Baptist Church

Greetings,

One of the most forgotten tools in optimizing effective public health strategies is Risk Communications. C. Edwards Concepts Public Health and Development Consulting LLC a nationally recognized leader in comprehensive Public Health consultation is fully qualified and experienced in multiple areas of Risk Communication Disease Intervention and Community Health. Since 2002 we have provided design, development and implementation services for local state and federal governments, non-governmental organizations, and community based organizations, and academic institutions. I am writing in hopes of securing an opportunity to discuss the provision of services for Public Health Consulting including but not limited to Education Awareness and Risk Reduction relative to lead contaminated water in Flint Michigan.

In the area of Risk Communication we have developed epidemiology influenced programming for disease intervention, risk assessment and risk reduction counseling testing referral and health services navigation.

From a strategic platform of Outreach and Engagement we have affected communities of color and beyond with measurable health outcome improvements by employing culturally and population sensitive strategies for Community Planning Health Promotions and Health Protection for successfully implementing Community Health initiatives.

In the area of Environmental Health our founding director is an Environmental Health Policy major and graduate of Tulane University School of Public Health and Tropical Medicine. In addition to her own studies she has also served as a Visiting Professor at the University of Nevada Las Vegas in the Division of Environmental Studies instructing Environmental Impact Analysis, Survey of the Environment, and Environmental Science. This serves as the foundation for both the experience and the expertise we have gained in the promotion of Health Safety and Environmental practices. We have developed and implemented worker safety training for Environmental Remediation projects licensed in the states of Louisiana and Nevada and in October 2013 entered into a three year contract with the University of Texas at Arlington Environmental Training Institute for the development of their curriculum for their Environmental Toxicology and Health Impacts course.

SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

The exceptional capacity and breadth of C. Edwards Concepts' skills and professional acumen is well documented. We are committed, well trained, and well able to help diverse stakeholders with varied interest. We have a working knowledge of the Clean Water Act and the Lead and Copper Rule which strengthens our ability to assess environmental and social risk factors in health related and environmental decision making processes.

Please afford me an opportunity to further discuss our organizations ability to serve as a valued resource for the City of Flint as it works to recover from this Public Health crisis. I will contact you on or before Tuesday February 2, 2016 as a follow up to this correspondence. Should you wish to reach me prior to that time you are welcome to do so at 318.519.4802 or via email: [charletteedwards@gmail.com](mailto:charletteedwards@gmail.com). Thanks so much for your consideration I look forward to speaking with you and serving your community. With kind regards I am ...

Committed to Health and Wellness

*Charlette Edwards*

Charlette Edwards, MSPH

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

CHARLETTE EDWARDS, MSPH  
Shreveport, LA 71107 [Charletteedwards@gmail.com](mailto:Charletteedwards@gmail.com) 318.519.4802

**Summary**

For more than 25 years, I have been successfully involved in the work of problem resolution. Via Administrative remedy, I have worked with agencies under the auspices of the federal government applying rules codified by the Codes of Federal Regulation and Revised Statutes from various states. To this end, I have attained an uncanny ability to establish, develop and maintain outstanding rapports with persons from various backgrounds and diverse cultures. This ability is only surpassed by my never-ending commitment to (1). Facilitate the accomplishments of my organizations described goals (2). Provide assistance in designing strategic plans of action to satisfy determined objectives (3). Utilize and employ, clear, decisive, leadership abilities needed to complete specific task or multifaceted problems.

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BAFB, LA

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**Relevant Experience:**

**National Science Foundation – Wiley College**  
Marshall, Texas

**STEM Project Manager**

- Provide technical guidance and assistance relative to scientific program planning

SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
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**University of Texas - *Environmental Training Institute***

Arlington, Texas

**Environmental Consultant**

- Curriculum Development
- Instructional Design
- Serve as subject matter expert in Environmental Toxicology and Health Impacts

**University of Nevada Las Vegas**

Las Vegas, Nevada

**Visiting Professor**

- Provide instruction in Environmental Sciences
- Develop course syllabi and supporting course materials
- Evaluate student mastery of skills and competencies required by course outcomes.

**James Hill and Associates**

Atlanta, Georgia

**Contractual Consultant**

- Developed Health and Safety Training Course for Construction Workers
- Delivered OSHA Specific training for workers to ensure compliance with OSHA standards
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**Environmental Policy Intern**

- Designed municipal efforts to network with community and its' leaders
- Implemented public awareness programs relative to emissions, recycling and household chemicals
- Developed of medical monitoring model and program for the city of New Orleans

SHREVEPORT, LOUISIANA



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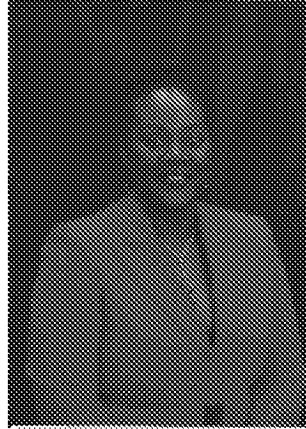
Carol Smith Peterson, B.S., R.N. – Nurse Care Manager

Rhonda Robinson, B.S., R.N, - Legal Nurse Consultant, Emergency Room and Oncology Nursing

Raigina Preston Hill, LRT, R.N., PSNP, - Respiratory Therapy, Nurse Practitioner

Allen Preston, DIS – Disease Intervention, Risk Assessment, Risk Reduction Counseling

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CONTACT:

CHARLETTE EDWARDS, MSPH

1545 LINE AVE. SUITE 211

SHREVEPORT, LOUISIANA 71101

318.519.4802

CHARLETTEEDWARDS@GMAIL.COM

---

**From:** Stoken, Laura (GOV)  
**Sent:** Monday, February 01, 2016 2:45 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Public Health Consulting  
**Attachments:** C Edwards Concepts Portfolio Dr. Karen Weaver.pdf

For your determination

**From:** Charlette Edwards [<mailto:charletteedwards@gmail.com>]  
**Sent:** Monday, February 01, 2016 1:15 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>; [mayor@cityofflint.com](mailto:mayor@cityofflint.com); [elidersanders@att.net](mailto:elidersanders@att.net)  
**Cc:** [saunder1@michigan.gov](mailto:saunder1@michigan.gov); Charlette Edwards <[charletteedwards@gmail.com](mailto:charletteedwards@gmail.com)>  
**Subject:** Public Health Consulting

Greetings,

With more than 25 years of professional experience spanning Politics, Administrative Law, and Public Health, I write you in hopes of securing an opportunity to serve you and your community through the provision of Public Health, Community Outreach and Risk Communications services.

Your consideration is greatly appreciated. Charlette Edwards

C. EDWARDS CONCEPTS PUBLIC  
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January 29, 2016

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Committed to Health and Wellness

*Charlette Edwards*

Charlette Edwards, MSPH

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**Primary Care**

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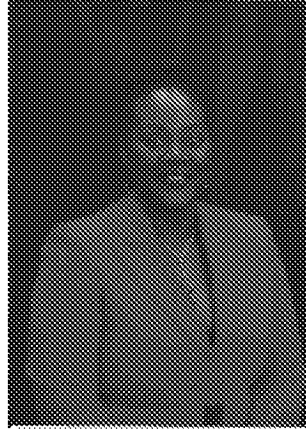
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CONTACT:

CHARLETTE EDWARDS, MSPH

1545 LINE AVE. SUITE 211

SHREVEPORT, LOUISIANA 71101

318.519.4802

CHARLETTEEDWARDS@GMAIL.COM

---

**From:** Baird, Richard (GOV)  
**Sent:** Monday, February 01, 2016 11:10 PM  
**To:** Sachs, Tori (GOV); Creagh, Keith (DEQ)  
**Subject:** Fwd: Fw: Message from Dennis Cawthorne

These keep coming out of the woodwork. I wonder if we have/need someone from Keith's team separating the "wheat from the chaffe".

Rich

*Sent from my Verizon Wireless 4G LTE DROID*

----- Forwarded message -----

From: Dennis Cawthorne <[DCawthorne@kelley-cawthorne.com](mailto:DCawthorne@kelley-cawthorne.com)>  
Date: Feb 1, 2016 1:45 PM  
Subject: Fw: Message from Dennis Cawthorne  
To: "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>  
Cc: [rbaird003@hotmail.com](mailto:rbaird003@hotmail.com)

Rich:

I copied Vogel-Brown on our correspondence and here is their latest response. Note the second paragraph in which they again say their receiving a "Lab Report" would be helpful.

I presently have no vested interest in what Vogel-Brown is proposing but, from the outside, their potential ability to provide near term drinkable, clean water appears interesting and perhaps merits your team's interest, as well.

Dennis Cawthorne

---

**From:** Richard Brown <[rbrown@vogelandbrown.com](mailto:rbrown@vogelandbrown.com)>  
**Sent:** Saturday, January 30, 2016 5:22 PM  
**To:** Dennis Cawthorne  
**Subject:** RE: Message from Dennis Cawthorne

Dear Dennis,

This is great; now we need to come through. It sounds as though they've put a "Tiger Team" in place and just getting organized.

I have our engineers working on the concept that is focused on near term provision of drinkable, clean water. The lab report will ensure we're proposing the correct solution. There are several ways we can go about this, but I propose a Demo as a Proof of Concept to show that our system actually works.

We still have not been able to contact our large scale engineer/patent holder, but as soon as we do I'll let you know where we stand and a proposed schedule.

I'm also in contact with one of our associate contractors that does large scale epoxy coating of water pipes without have to remove or did them up. I should have more on them Monday.

Thanks for your support.

Richard Brown

---

**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, February 02, 2016 8:39 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** Company

For your determination

---

**From:** info [mailto:info@rcunique.com]  
**Sent:** Monday, February 01, 2016 8:02 PM  
**To:** Stoken, Laura (GOV) <Stokenl@michigan.gov>  
**Subject:** Re: Re: RE: Executive Office of the Governor

Dear Laura ,

I read online that the plumbers union were helping all the flint residents changing faucets and install filters .pls note that we can provide our equipment and technique support for free for flint residents ,but we will need the plumber union to do the cleaning process ,waiting for your reply .thanks

2016-02-01

---

**Best regards!**

**Melia Tang**

**19295 E .Walnut Dr.North #H**  
**City of Industry.Los Angeles.CA 91748**  
**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: www.rcunique.com**  
**Email:info@rcunique.com**

---

发件人 : "info" <info@rcunique.com>  
发送时间 : 2016-02-01 11:41  
主题 : Re: RE: Executive Office of the Governor  
收件人 : "Stoken, Laura (GOV)" <Stokenl@michigan.gov>

抄送：

Dear Laura ,

Thanks for your reply .please take a looking in our website .we are speciallize in clean water pipes for residents area .with our technology ,each single house will take around 2-3 hours to clean up all the pipes lines .no need any repipe or construction .right now we still serve Los Angeles .but if you need our help .we can certainly send someone to Flint city to help you .i think you are aware that the faucet filter won't be working so well if the residents still have dirty water pipes .they still can't get clean water for shower and other daily usage water as well .

please take a look in a website .and let me know how we can help .thanks

[www.rcunique.com](http://www.rcunique.com)

2016-02-01

**Best regards!**

**Melia Tang**

**19295 E .Walnut Dr.North #H**  
**City of Industry.Los Angeles.CA 91748**  
**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: [www.rcunique.com](http://www.rcunique.com)**  
**Email:[info@rcunique.com](mailto:info@rcunique.com)**

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发件人："Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>

发送时间：2016-02-01 11:31

主题：RE: Executive Office of the Governor

收件人："info" <[info@rcunique.com](mailto:info@rcunique.com)>

抄送：

Thank you Melia,

Please provide specific details so I can forward it to the appropriate person at the State Emergency Operations Center for review.

Thank you,

Laura

---

**From:** info [<mailto:info@rcunique.com>]  
**Sent:** Monday, February 01, 2016 2:22 PM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** Re: Executive Office of the Governor

Dear Laura,

Thanks for your reply ,the reason I am contacting you is that I think my company can help the governor with this issue in the final stage .for flint water,there are still few steps to solve the issue .first,you government need to provide clean water source ,second ,you will need to repipe or clean all those corroded water pipe lines .third stage ,we may be able to help with our technology .as we all know how long and how expensive it is gonna take for repiping for each house ,if the water pipes are not so corroded ,we are able to clean the water pipes for residents .in this way ,they will get your clean water .let me know how you think about it ,I am waiting for your further reply .thanks .

2016-02-01

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**Best regards!**

**Melia**

**19295 E .Walnut Dr.North #H**  
**City of Industry.Los Angeles.CA 91748**  
**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: www.rcunique.com**  
**Email:info@rcunique.com**

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**发件人 :** "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**发送时间 :** 2016-02-01 11:11  
**主题 :** Executive Office of the Governor  
**收件人 :** "Melia T" <[info@rcunique.com](mailto:info@rcunique.com)>  
**抄送 :**

Dear Melia T,

Thank you for your recent correspondence sent to Governor Rick Snyder. As a member of Governor Snyder's staff, I am responding on his behalf.

The health and welfare of Flint residents is the top priority. Governor Snyder's focus is on getting residents the help they need and the response they deserve. He wants to ensure Flint residents have access to clean, safe drinking water. Safe water as well as filters are being delivered door to door and are also available at designated locations throughout the city.

The Governor created a bipartisan, independent task force to review all state, city and federal actions concerning Flint water and making recommendations for the future. We're focused at solving the immediate problems, and also addressing long-term needs. The Flint Water Interagency Coordinating Committee will bring together a wide range of experts to work on long-term solutions to the Flint water situation and ongoing public health concerns affecting residents.

Governor Snyder declared a state of emergency, requested federal assistance, and activated the Michigan National Guard. President Obama granted an emergency declaration, providing \$5 million for water, water filters, filter replacements and water test kits. Congress can approve additional funding. The Governor had also requested from the President a major disaster declaration, which was denied based on the legal requirement that under the Stafford Act disaster relief is available only for natural events, fires, floods, or explosions. The state is now appealing the disaster declaration denial.

The top priority of response efforts is to ensure residents have access to safe, clean drinking water. Residents should install filters to their taps to ensure they have immediate, ongoing access to safe water. It is important to follow installation and maintenance instructions for filters and replacement cartridges. There are five water resource centers, open seven days a week from 9 a.m. to 9 p.m. at Flint fire stations. There are water resource teams going door-to-door to ensure every resident has a water filter and additional water resources.

- If you want to donate or volunteer to help the people of Flint, visit: [www.helpforflint.com](http://www.helpforflint.com).

Since the Governor's emergency declaration we have distributed 207,055 cases of bottled water, nearly 37,342 filters, and 30,801 water testing kits. When installed and maintained properly, water filters remove 99 percent of lead in water. Residents are urged to use filtered water for drinking, food preparation, brushing teeth and watering pets. Unfiltered water may be used for bathing and cleaning.

For a Flint Water timeline, please visit [CLICK HERE](#).

Friday, January 29 Governor Snyder signed legislation bringing \$28 million to immediately help families in Flint with lead testing, treatment and other emergency services. The funding was part of a multi-point relief package the governor outlined last week during his state of the state address to the Michigan Legislature.

This is the second emergency supplemental funding bill allocated to assist the city of Flint this fiscal year. A previous \$9.3 million package was approved in October 2015 to reconnect Flint to the Detroit Water and Sewerage Department, provide filters and water testing to residents, aid in follow-up

health services for children and assist with plumbing inspections at schools and health facilities.

House Bill 5220, sponsored by state Rep. Phil Phelps and approved unanimously in both the House and Senate will help ensure Flint residents have access to safe, clean drinking water while helping to do the following:

- Supply free bottled water, faucet filters, and testing kits for Flint residents;
- Put nine nurses in local schools to monitor student health and well-being;
- Provide better nutrition for students and infants through WIC and in-school nutrition programs;
- Replace fixtures in schools, daycares, nursing homes and hospitals;
- Provide for an infrastructure study using independent experts;
- Treat any children who have high lead levels in the blood, using diagnostic testing, nurse visits and environmental assessments in the home;
- Provide additional community education opportunities within the Genesee County Health Department;
- Compensate the Michigan National Guard's work to support water distribution;
- Assist with home lead abatement costs;
- Help the City of Flint with utility issues;
- Provide operational funding for the Flint Interagency Advisory Committee.

The funding bill totals \$28 million with \$22.6 million from the general fund. The remaining \$5.4 million comes from a combination of federal and restricted funds. It is now Public Act 3 of 2016.

Governor Snyder will propose a long-term funding solution to address the ongoing needs of Flint in his Feb. 10 formal budget recommendation. Long-term health monitoring for children exposed to the water and potential replacement of water infrastructure and service lines will be addressed through the governor's traditional budget recommendation, which will be shared on Feb. 10.

We will continue to work to improve the water situation in Flint. Community members and local officials are working together to make sure we hear and respond to concerns.

Thursday, January 28 a plan to recycle the thousands of plastic bottles being distributed during the Flint water crisis. The plan includes drop-off sites for recyclables and increased promotion of the curb side pickup already offered to Flint residents. [To learn more about the recycling plan in Flint, click here.](#)

For updates, please visit [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater).

Thank you, again, for taking the time to share your concerns with our office. Should you have any further comments, questions or concerns regarding this or any other state-related matter, I've included my contact information below.

Sincerely,



Laura Stoken  
Constituent Relations Division  
Executive Office of the Governor, Rick Snyder  
517.335.7858 (o)

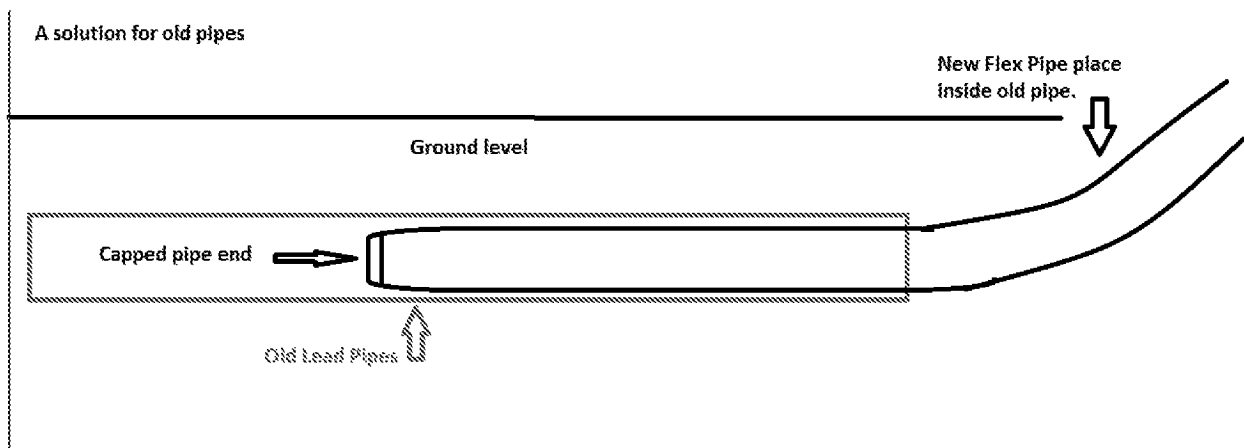
Greetings;

While I am not an engineer I have come up with a solution for the Flint water line replacement issues. The concept came from remembering how new natural gas lines were being placed this past summer. The lines had a flex to them and where placed in holes bored at an angle underground the running horizontally.

Using a similar concept use a flex pipe that is smaller than the inside diameter of the old pipe. the end that is inserted is capped to protect the inside of the new pipe while it is sliding the old pipe.

This concept can be used for main and feeder lines.

See Diagram below for example:



It is my belief that this would greatly reduce the time and expense needed to repair and or replace the old toxic water lines. The slightly smaller lines will slightly reduce the rate of flow but the speed which it could be greater than digging up the old lines.

Please consider this as a quicker solution to the issue that has arisen in Flint.

Brian Storace  
Owosso,MI

---

**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, February 02, 2016 10:08 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint Water solution suggestion  
**Attachments:** flint pipe solution.pdf

For your determination

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**From:** B Storace [mailto:[brs2home@yahoo.com](mailto:brs2home@yahoo.com)]  
**Sent:** Friday, January 22, 2016 3:51 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Subject:** Fw: Flint Wat solution suggestion

2nd attempt first was kicked back

----- Forwarded Message -----

**From:** B Storace <[brs2home@yahoo.com](mailto:brs2home@yahoo.com)>  
**To:** "brian.calley@michigan.gov" <[brian.calley@michigan.gov](mailto:brian.calley@michigan.gov)>  
**Sent:** Wednesday, January 20, 2016 8:13 PM  
**Subject:** Flint Wat solution suggestion

Mr. Calley;

The share an opinion system was not working tonight for Govenor Snyder. I was trying to pass a long a solution I came up with for the toxic Flint pipes. I have a PDF attached explaining the solution. If you coould please pass it along to anyone who will find it useful it solving the issues.

Best regards  
Brian Storace  
1709 N. M 52  
Owosso, MI 48867

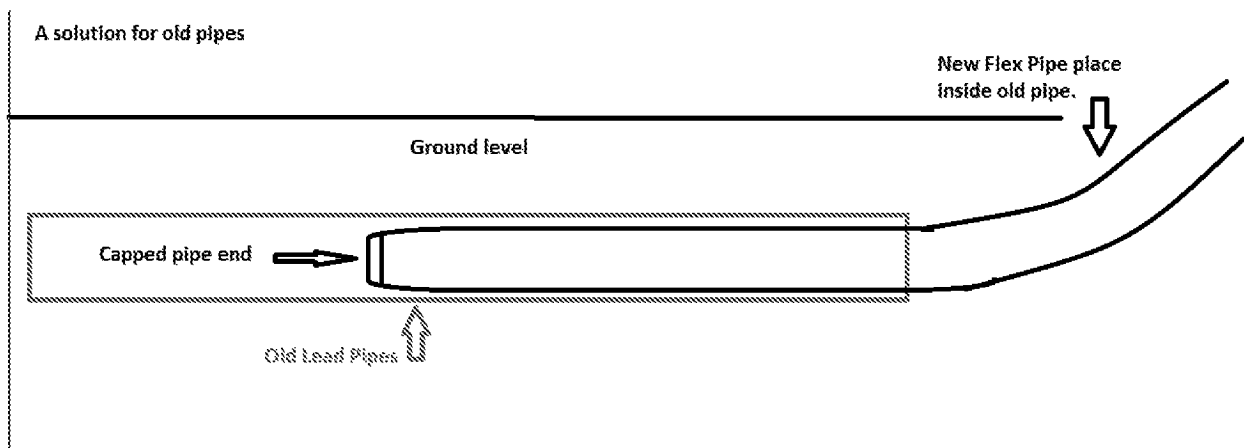
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This concept can be used for main and feeder lines.

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Please consider this as a quicker solution to the issue that has arisen in Flint.

Brian Storace  
Owosso,MI

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**From:** McBride, Bill (GOV)  
**Sent:** Tuesday, February 02, 2016 1:06 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: IBWA Letter for Governor Snyder  
**Attachments:** Snyder Flint letter 012916.pdf

---

**From:** James Toner [<mailto:JToner@bottledwater.org>]  
**Sent:** Monday, February 01, 2016 7:46 AM  
**To:** McBride, Bill (GOV) <[mcbrideb@michigan.gov](mailto:mcbrideb@michigan.gov)>  
**Subject:** IBWA Letter for Governor Snyder

Bill,

I hope this finds you well and that you are holding up with everything going on regarding Flint. It's been a while since we have talked but I was always impressed with all the individuals in Governor Snyder's office that cover water issues. So, I imagine you have things well in hand.

I wanted to get this letter from IBWA to the Governor to let him know the bottled water industry is doing all we can and we stand ready to assist in any way possible moving forward.

Please let me know if you have any questions or if I can be of further assistance.

JP

James P. Toner, Jr.  
Director of Government Relations  
International Bottled Water Association (IBWA)  
1700 Diagonal Road  
Suite 650  
Alexandria, Virginia 22314  
703.647.4616 Direct  
703.683.5213 Main  
703.683.4074 Fax

Follow IBWA on





1700 Diagonal Road, Suite 650  
Alexandria, VA 22314  
Ph: 703-683-5213  
Fax 703-683-4074  
Web: [www.bottledwater.org](http://www.bottledwater.org)

January 29, 2016

The Honorable Rick Snyder  
Governor of Michigan  
P.O. Box 30013  
Lansing, MI 48909

Dear Governor Snyder,

The International Bottled Water Association (IBWA) would like to take this opportunity to offer our assistance to you and your administration in responding to the recent water emergency in Flint, Michigan. Our members are very familiar with the logistics of responding to events such as natural disasters, water main breaks, and other incidents that can compromise public water systems. IBWA therefore appreciates the recent efforts undertaken by the state, the city of Flint, and third parties to ensure that citizens receive clean, potable water during this significant crisis. Over the years, IBWA has had several opportunities to discuss various water issues with your staff and we have always been impressed with their knowledge and understanding of critical water infrastructure matters.

The bottled water industry is always there to help during a natural disaster or other emergency situation. And every year, IBWA members respond to requests -- both big and small -- to provide bottled water to those in need. In Flint, IBWA members immediately stepped forward to reroute trucks and coordinate with local suppliers to provide citizens with safe, clean, bottled water when the public water system was found to be compromised. So far, IBWA members have taken the following actions to help provide the citizens of Flint with safe drinking water:

- Donated over 1.5 million bottles of bottled water.
- Coordinated efforts with emergency relief partners such as Convoy of Hope and the Food Bank of Eastern Michigan.
- Worked with other bottled water retailers and bottlers to ensure approximately 10,000 Flint public school students have access to clean, safe water.

IBWA is the national trade association that represents all segments of the bottled water industry, including spring, mineral, purified, artesian, and sparkling. Founded in 1958, IBWA member companies include water producers, distributors, and suppliers throughout the United States, including several companies conducting business in Michigan. While we represent companies of all sizes, the vast majority of our members are small, locally-owned companies, with 60 percent reporting less than \$2.5 million in annual gross sales, and 90 percent reporting less than \$10 million in annual gross sales. IBWA's mission is to serve the members and the public by championing bottled water as an important choice for healthy hydration, and promoting an environmentally responsible and sustainable industry.

While the conditions associated with the situation in Flint continue to be addressed, please know that the bottled water industry is always ready to help in any way to assist in providing safe, clean, healthy water.

Please contact me should you have any questions or if we can be of any further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Joe Doss".

Joe Doss  
President and CEO



1700 Diagonal Road, Suite 650  
Alexandria, VA 22314  
Ph: 703-683-5213  
Fax 703-683-4074  
Web: [www.bottledwater.org](http://www.bottledwater.org)

January 29, 2016

The Honorable Rick Snyder  
Governor of Michigan  
P.O. Box 30013  
Lansing, MI 48909

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Please contact me should you have any questions or if we can be of any further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Joe Doss".

Joe Doss  
President and CEO

---

**From:** Weise, Kevin (MSP)  
**Sent:** Tuesday, February 16, 2016 9:40 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** FW: 3/4  
**Attachments:** FW5 (2).zip

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Sachs, Tori (GOV)  
Sent: Tuesday, February 09, 2016 7:39 PM  
To: Lord, Daniel (DNR); Weise, Kevin (MSP)  
Subject: 3/4

Sorry for the multiple emails. Just want you to have all of these.

Tori Sachs  
External Affairs Advisor  
Office of Gov. Rick Snyder  
C: 517-775-3688



---

**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 6:34 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Company S313625

Jack Lee  
PO Box 426 Sweetwater, TX 79556  
[KL7359@gmail.com](mailto:KL7359@gmail.com)  
325.235.8491

I-20 Envoro-tech has a water solution system for the issue of lead in Flint's water..We have a mobil e-c unit capable of cleaning 1.2 million gallons of water a day.Based on requirements the unit will clean water to drinking stage. We would be glad to run a test. We are based in Texas and have extensive recycling and hydro engineering experience.

Laura Stoken  
Manager, Constituent Relations  
Executive Office of the Governor, Rick Snyder  
517.335.7858

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**From:** Stoken, Laura (GOV)  
**Sent:** Thursday, January 28, 2016 2:54 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company - Flint Water Crisis

**Importance:** High

For your determination

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**From:** Reno [<mailto:savetax@accesscomm.ca>]  
**Sent:** Thursday, January 28, 2016 1:21 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>; Hunter, Janet (DHHS) <[HunterJ8@michigan.gov](mailto:HunterJ8@michigan.gov)>  
**Subject:** Request For Assistance - Flint Water Crisis  
**Importance:** High

Gentlemen,

Greetings from north of the boarder. My name is Reno Giambattista. I reside in Regina, Saskatchewan, Canada. I hope this email reaches you as I was unable to go through the contact portal on your main website as it does not allow Canadian based content and after contacting your office by phone I was given some more direction on who to reach out to.

First and foremost, I hope you are making more and more positive strides in your pursuit of a 'fix' for the current water crisis in Flint. I and many fellow Canadians have been following it very closely.

The intent of this email is in the hope that my great friend's company, Pure Water Box, may be able to help assist you in your efforts. In a nutshell, Pure Water Box resides in Markham, ONT. and has the ability to provide an ERT (Emergency Response Trailer) that can be operational within hours of arrival at a disaster/crisis zone. It is probably one of the most innovative and reliable systems I have ever had the chance to set on eyes on.

I know you are very busy with tons of groups reaching out to you and that you have limited resources, but I strongly feel that the conversation with the President of the company, Ryan Mitchell, is well worth the time and energy in order to see what can be accomplished.

For more information please go to [www.purewaterbox.ca](http://www.purewaterbox.ca).

Ryan Mitchell's direct contact info is Cell: (416) 662-6923 Email: [ryan@purewaterbox.ca](mailto:ryan@purewaterbox.ca)

Thank you in advance for your time and all the best in your endeavours to fix what needs to be fixed.

Sincerely,

Reno

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**From:** Rich Baird <rbaird003@hotmail.com>  
**Sent:** Thursday, January 28, 2016 2:59 PM  
**To:** Dennis Cawthorne; Baird, Richard (GOV)  
**Cc:** Sachs, Tori (GOV)  
**Subject:** Re: Message from Dennis Cawthorne

These are coming out of the woodwork. I have just assigned a person to inventory and track these requests to the folks accountable for making decisions on procurement in the departments. Thank you.

Rich

Sent from Outlook Mobile

On Thu, Jan 28, 2016 at 8:46 AM -0800, "Dennis Cawthorne" <[DCawthorne@kelley-cawthorne.com](mailto:DCawthorne@kelley-cawthorne.com)> wrote:

Rich:

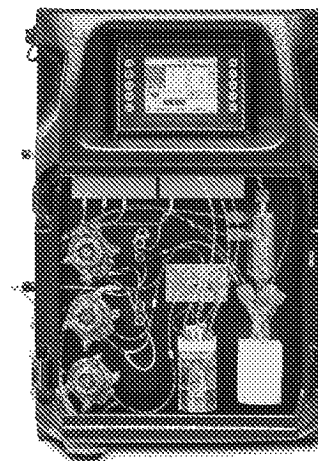
I'm sure you are being inundated with matters involving the Flint crisis. However, I thought the following may possibly be of interest and value to you:

Vogel-Brown, a firm located in northern Virginia, contacted me through a mutual friend, stating that in 2015 they became the USA distributors of Japanese patented water cleansing technology that is capable of cleaning/removing large amounts of iron, lead, and bacteria, including Cryptosporidium, from municipal water systems. They inform me that the Japanese have been using this technology for 20+ years and have 19 million households using individual units. Their focus is an HVAC application which removes all metals, minerals, and microbials from HVAC systems water, without using any chemicals, and by application of electrolysis.

They have an interest in being of assistance in the current crisis. They have asked if it would be possible to get "the latest Lab Report from the Flint water facility which should identify all the microbials, chemicals, metals, and minerals, and their concentrations" so the company can intensify its efforts to see if their technology may be applicable and of value to the State of Michigan.

Dennis Cawthorne

Single and multi-parameter  
determination of trace metals in  
water by on-line voltammetry



### Advanced features

- Flexibility in analytical mainframe: single or double ASV cell
- Pre-treatment options for complexed forms or higher organic content
- Easy operation and simple maintenance
- Complete separation between electronics and wet part
- Multiplexing up to eight (8) sampling points possible
- Incorporated industrial PC with AppliTek controller software
- Extended data communication and exchange features

### Application fields

Determination of trace metals/heavy metals in clean waters:

- Surface water
- Drinking water
- Mineral water
- Waste water effluent

### High analytical performance

- Low sample and reagent consumption
- Excellent correlation with standard laboratory methods
- Smart features: automatic calibration and automatic cleaning
- Factory configured, tested and calibrated

## Technical specifications

### Analytical data

#### Analysis method

Anodic Stripping Voltammetry (ASV)

#### Parameters

Antimony (Sb), arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), iron (Fe), lead (Pb), manganese (Mn), mercury (Hg), molybdenum (Mo), nickel (Ni), platinum (Pt), selenium (Se), silver (Ag), tin (Sn), zinc (Zn)

Examples of combinations:

Cd + Cu + Pb + Zn, additionally Ni

As(III) + As(total) + Hg

As (total) + Hg + Sn

#### Cycle time

ASV analysis: 15 minutes

Optional oxidation: 20 minutes

*Note: oxidation time can be set to 60 minutes for difficult samples*

#### Calibration

Factory calibrated

#### Cleaning

Automatic, free adjustable sequence

#### Detection limit

ppb levels, depending on parameter

#### Precision / Repeatability

Better than 5% full scale for standard solutions

### Environmental data

#### Ambient operating conditions

10 °C – 30 °C +/- 4 °C deviation at 5 - 95% relative humidity non-condensing  
(50 °F – 86 °F +/- 7.2 °F deviation)

#### Reagent temperature

Keep between 10 °C - 30 °C (50 °F - 86 °F)

#### Sample pressure

By external overflow vessel

#### Sample flow rate

Fast loop sample supply required - minimal flow rate depends on application

#### Sample particulates

Maximum size 40 µm, < 0.1 g/l

### Utilities

#### Power

220 - 240 VAC, 2 A, 50 Hz

Max. power consumption: 120 VA

Other voltages available on request

#### Instrument air (purging)

Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air

#### Tap water

- Cleaning and/or dilution
- Cooling of the condenser

#### Drain

Atmospheric pressure, vented, min. Ø 64 mm

#### Earth connection

Dry and clean earth pole with low impedance (< 1 ohm) using an earth cable of > 2.5 mm²

### Reagents

#### Reagents

*Please check respective datasheets.*

#### Reagent containers (included)

To be placed outside cabinet

Containers come with torqueless screw caps.

#### Cleaning solution (recommended)

Tap water or specific chemical solution

### Mechanical data

#### Protection class

Analyzer cabinet: IP55

Touch screen/Industrial PC: IP65

#### Cabinet and materials, hinged part

Thermoform ABS

Door: plexiglass

#### Cabinet and materials, wall section

Galvanized steel, powder coated

#### Wetted materials

PE / PTFE / PP / PFA

#### Dimensions (H X W X D)

69 cm (27.2") x 46.5 cm (18.3") x 33 cm (13")

#### Total weight

25 kg (55 lbs.)

### Control and communication

#### User interface / controller

Industrial PC with 5.7" TFT colour user interface, compact flash memory

Backlit touchscreen, brightness adjustable

#### Data handling, logging and security

- Standard Ethernet 10 M (RJ45) NE 2000
- Communication ports supporting Ethernet connectivity to MODBUS TCP/IP
- Log files with 1,000 values/results are stored
- Easy export to spreadsheet files
- Sealed USB port for data or result graph download and program upload
- User interface with administrator access and menu keys activated/inactivated
- Data retention in case of power failure, initialization program for safe status after restart

#### Analogue outputs

Maximum 8, active 4 – 20 mA

Max. 500 Ohm load

#### Alarms (digital outputs)

- Malfunctioning alarm (potential free contact)
- Result alarm (potential free contact)

#### MODBUS TCP/IP, MODBUS-RS232 -RS485

Optional

### Options / add-on units

#### Sample digestion unit (built-in)

Sample pretreatment unit with hot acid digestion and reflux condenser

#### Sample preconditioning

**MicroSize®** self-cleaning microfiltration unit, various pore sizes available

#### Reagent level detection

Installed on reagent containers; alarms are generated by controller software

#### Multiple streams

**ModuPlex®** 2 or 3 streams (8 on demand)

### Certification

#### CE approval

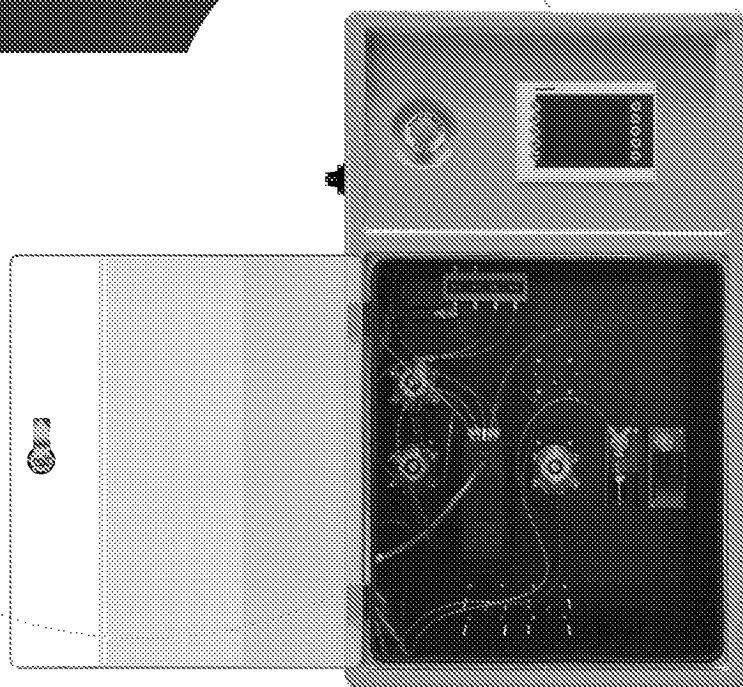
Certified to CE approval

#### Factory Acceptance Test (FAT)

At AppliTek NV, Belgium.

# coliLyzer

On-line Monitoring of *E. coli* and Total Coliforms  
in Drinking Water and Surface Water



**coliLyzer®** Automatic, on-line monitoring of  
target pathogen levels in water sources

- On-line monitoring of fecal coliforms and coliform groups in various water sources
- Convenient, automatic operation requiring no special analytical chemistry or microbiology skills
- Selection of rapid qualitative methods and quantitative methods
- Flexible analysis cycles of 24 h up to 1 every 3h
- Industry-standard enzyme indicators of coliforms
- Incorporated industrial panel PC with AppliTek controller software

Masters in Analytical Technology.

**AppliTek**

# On-line Monitoring of *E. coli* and Total Coliforms in Drinking Water and Surface Water

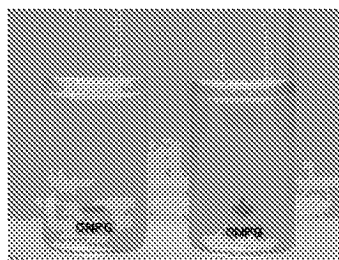
## Pathogen load of water

Waterborne illnesses as a result of *Escherichia coli* infections have become an emerging subject in the field of water quality management and public health. *E. coli* is a member of a group of organisms known as coliforms: common bacteria found in the digestive system of humans and animals. Permissible levels have been set for water sources by authorities and agencies worldwide, specifically for drinking water. Hence the importance of reliable, fast monitoring systems for qualification and quantification of coliforms cannot be underestimated.

## Principle of analysis

The analysis method of the **coliLyzer®** is based on two chemicals, ONPG (*ortho*-nitrophenyl- $\beta$ -D-galactopyranoside) and MUG (4-methyl-umbelliferyl- $\beta$ -D-glucuronide). These are used in the medium as substrates for two distinct reactions that are specific for total coliforms and *E. coli*. All coliform bacteria produce an enzyme  **$\beta$ -galactosidase** that reacts with ONPG to give the medium a yellow color. When growth of coliform bacteria occurs, the increasing concentration of the enzyme hydrolyzes more and more ONPG resulting in a pronounced color change of the water sample to yellow. *E. coli*, however, synthesizes a specific enzyme  **$\beta$ -glucuronidase** metabolizing MUG to methylumbelliferone and produce fluorescence which can be detected with UV light (365 nm).

Inside the **coliLyzer®**, the change in color as well as the degree of fluorescence is continuously measured by two spectrophotometers until a signal is detected.



## Technology basics

Contrary to automated laboratory systems, the **coliLyzer®** is a fully automatic on-line analyzer that can be used as an early warning system for detection and measurement of coliform organisms in water. The simultaneous use of two different substrates, ONPG and MUG, is a major breakthrough in the detection and quantification of coliforms since it allows to differentiate between total coliforms and *E. coli* specifically.

Water samples are taken from a fast loop of or any pipe close by the analyzer, injected in a sterile medium liquid containing the two substrates stored inside the analyzer. The bacteria that are presumably present in the sample are allowed to incubate. The change in color as well as the degree of fluorescence is continuously measured until either a reliable signal or a (programmable) threshold value is detected. This depends on the initial concentration of those bacteria and how long the incubation time will be:

Low initial concentration = long incubation and long detection time.

High initial concentration = short incubation and short detection time.

Sampling, analysis and reporting are automatic, which allows fast feedback on the microbial load in the water body. The **coliLyzer®** offers convenient and simplified operation requiring only basic skills in microbiology or analytical chemistry. Operators can focus on action plans if necessary and protect their water source from immediate threat of waterborne pathogens.

### Analytical specifications

Parameters	Heat resistant (fecal) coliforms / / <i>E. coli</i> / Total coliforms
Sampling volume	100 mL
Sampling frequency	3 - 24 hours
Analysis cycle	Less than 24 hours
Measurement range	Depending on target pathogen concentration
Detection limit	1 / 100 mL - 10 x 10 <sup>11</sup> / 100 mL
Incubation temperature	36.5 °C (coliform bacteria) or 44.5 °C (fecal coliform)
Reagents	1 bottle of culture solution / sample

---

**From:** Calley, Brian (GOV)  
**Sent:** Thursday, January 28, 2016 3:12 PM  
**To:** Sachs, Tori (GOV)  
**Cc:** Saunders, Kelli (GOV)  
**Subject:** FW: CNN coverage Flint water crisis  
**Attachments:** ColiLyzer-EN.PDF; AppliTrace-EN\_Leaflet.pdf; TitriLyzer-EN.PDF

**Importance:** High

Forwarding through you as it appears this individual is working with the city

---

**From:** Bhupen Patel [mailto:bpatel@pimcgroup.com]  
**Sent:** Thursday, January 28, 2016 10:57 AM  
**To:** Benzie, Richard (DEQ) <BENZIER@michigan.gov>; Graham, Lois (DEQ) <GRAHAML@michigan.gov>  
**Cc:** Calley, Brian (GOV) <Brian.Calley@michigan.gov>  
**Subject:** FW: CNN coverage Flint water crisis  
**Importance:** High

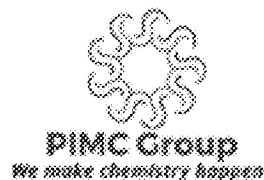
My recommendation is to conduct corrosivity tests through out the distribution system for City of Flint.

I have worked at American Water as a water quality supervisor and work with lake Michigan water as source water at Gary, and Ogdon dunes. At present, I am independent water treatment process professional.

Please let me know if I can be of any help. Thank you.

All the Best!

**Bhupen Patel** M.Sc. MS, MBA |Process Sales – North America | Process Analytics



**AppliTek**



2388 Providence Dr | Greenwood | IN | 46143  
Mobile +1 317 625 4216 | Customer Service +1 317 530 5573  
E-mail: [b.patel@applitek.com](mailto:b.patel@applitek.com) | [bpatel@pimcgroup.com](mailto:bpatel@pimcgroup.com)  
[www.applitek.com](http://www.applitek.com) | [www.pimcgroup.com](http://www.pimcgroup.com)

Come join us at

**WITtec April 11-13, 2016 Wyndham Indianapolis West**



---

**From:** Bhupen Patel [<mailto:bpatel@pimcgroup.com>]

**Sent:** Thursday, January 21, 2016 12:10 PM

**To:** 'bwright@cityofflint.com' <[bwright@cityofflint.com](mailto:bwright@cityofflint.com)>; 'Bhupen Patel' <[b.patel@applitek.com](mailto:b.patel@applitek.com)>

**Cc:** 'David Laurier' <[D.Laurier@applitek.com](mailto:D.Laurier@applitek.com)>; 'Chris Welsh' <[c.welsh@applitek.com](mailto:c.welsh@applitek.com)>; 'mfucich@fctechusa.com' <[mfucich@fctechusa.com](mailto:mfucich@fctechusa.com)>

**Subject:** FW: CNN coverage Flint water crisis

**Importance:** High

Dear Mr. Wright,

Thank you for taking my call this morning. AppliTek offers cutting-edge technologies in real time water quality monitoring for source water, treatment processes, and finished water. I have attached leaflets of our ColiLyzer and AppliTrace. AppliTrace is our trace metal analyzer for most toxic metals including lead and copper. ColiLyzer can check the effective disinfection in the finish water as well settled water before disinfection. Both of these analyzers can be deployed in the distribution system to monitor the drinking water quality to check any infiltration or leakage cross contamination.

Additionally, I would like to offer the TitrLyzer for alkalinity and hardness online analysis. In my experience, when the source water has relatively low alkalinity, the finish water it self become more aggressively corrosive to lead and copper plumbing. IF we measure finish water alkalinity at the plant add soda ash based on the alkalinity readings and stabilize the water, the lead and copper situation can be some what brought under control. AppliTrace analyzers can also be deployed at the river water intakes to measure lead and copper in the source water.

As I stated, in my telephone call I will be at the AWWA Lansing meeting during the first week of February. We can schedule a meeting then, or We can do this next week. I understand the urgency and I would like to support in your efforts to make good water.

All the best!

Bhupen Patel M.Sc. MS, MBA | Process Sales – North America | Process Analytics

**AppliTek**

AppliTek USA

2388 Providence Dr | Greenwood | IN | 46143

Mobile +1 317 625 4216 | Customer Service +1 317 530 5573

E-mail: [b.patel@applitek.com](mailto:b.patel@applitek.com) | [www.applitek.com](http://www.applitek.com) | [bpatel@pimcgroup.com](mailto:bpatel@pimcgroup.com)

**WITtec April 11-13, 2016 Wyndham Indianapolis West**



---

**From:** Bhupen Patel [<mailto:b.patel@applitek.com>]  
**Sent:** Thursday, January 21, 2016 10:49 AM  
**To:** Bhupen Patel <[bpatel@pimcgroup.com](mailto:bpatel@pimcgroup.com)>  
**Subject:** FW: CNN coverage Flint water crisis  
**Importance:** High

---

**From:** David Laurier  
**Sent:** donderdag 21 januari 2016 5:41  
**To:** 'edwardsm@vt.edu'  
**Cc:** 'knocke@vt.edu'; 'Mark Fucich ([mfucich@fctechusa.com](mailto:mfucich@fctechusa.com))'; Bhupen Patel; Chris Du Bois; Chris Welsh  
**Subject:** CNN coverage Flint water crisis  
**Importance:** High

Dear Prof. Dr. Edwards,  
Dear Ms. Dong  
Dear Ms. Dai

I'm currently on an Asian tour to visit our recently installed river monitoring stations.

Your interview on CNN today about the Flint drinking water issues, caught my attention.  
I'm currently in Thailand visiting some stations.

Just wanted to inform you that we are world-leader in installing early warning monitoring systems, with hundreds of references in China (mainly trace metals, toxicity and COD), Middle East, Latin America. Currently, we are bidding on the Ganga (India) river monitoring project.

(Your Chinese co-works can egally visit our Chinese website [www.applitek-china.com](http://www.applitek-china.com) and follow us on wechat channel. My personal wechat is luodawei8888)

We have on-line analyzers that detect a PPT/PPB/PPM levels Pb & Cu, and virtually all trace metals of importance, we also manufacture on-line

ATP analyzers, on-line e-coli/fecal coliform/total coliform/total bacteriae analyzers, and a broadband toxicity analyzer AppliTOX II using (discontinuous) *Vibrio fischeri*.

We have 2 branches in USA, Indianapolis and baton rouge, LA.

If you or your researchers are interested in meeting with us, let us know. We are at your disposal being part of your holistic approach to water Quality monitoring.

All the best and good luck at Flint.

David Laurier  
CEO



**David Laurier, MBA**  
President & CEO - Vice Chairman of the Board

Tel +32 9 386 34 02 | Fax +32 9 386 72 97 | [d.laurier@applitek.com](mailto:d.laurier@applitek.com) | Skype david-laurier  
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Disclaimer: <http://www.applitek.be/disclaimer.htm>

☼ Please consider the environment and our planet before printing this e-mail.

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**From:** Stoken, Laura (GOV)  
**Sent:** Thursday, January 28, 2016 3:27 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company

For your determination

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**From:** John Swon [<mailto:jswon@silverlng.com>]  
**Sent:** Thursday, January 28, 2016 3:13 PM  
**To:** Hall, Jean (GOV) <[hallj16@michigan.gov](mailto:hallj16@michigan.gov)>  
**Subject:** SilverLiningR for MI

Hi Jean,

I am hoping you can point me in the right direction? Originally I thought Angela Ayers would be a good person to start with but perhaps it's someone else? Anyway, there's obviously a tremendous amount of national press surrounding the drinking water problems in Flint. My team and I from our New Jersey and Boston offices have casually discussed, for the last couple weeks, how we could quite easily, quickly, cost effectively and permanently repair damaged water pipes on behalf of the State of Michigan, Governor Snyder and certainly the people of Flint. My company, SilverLining®, features a patented, one of a kind pipelining technology and methodical field expertise to repair and rehabilitate compromised pipe (like the ones in Flint) better than new without digging, disruption and the cost associated with brand new pipe.

Who might I be able to speak with to further discuss what would be a phenomenal solution to a very challenging problem?

Thanks in advance for your assistance.

John

**John Swon**  
**Executive Vice President**

**SilverLining**

Pipelining Technology

908.367.3936 office

908.477.3077 cell

[www.silverlng.com](http://www.silverlng.com)

---

**From:** Stoken, Laura (GOV)  
**Sent:** Thursday, January 28, 2016 4:55 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Company - FLINT, MI WATER SOLUTION 4:03 PM & A Way To Pay The Bill!!!  
**Attachments:** jeffybond.doc; tshirtxy.jpg; OBAMACARE\_REPLACEMENT.pdf

**From:** Jeffrey Cutler [mailto:[eltaxcollector@gmail.com](mailto:eltaxcollector@gmail.com)]  
**Sent:** Thursday, January 28, 2016 4:33 PM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** FLINT, MI WATER SOLUTION 4:03 PM & A Way To Pay The Bill!!!

Dear Gov. Snyder;

My solution is trivial...Create a combination **Water Meter/Analyzer/Filter** and install them on each property. This can be created **from off the shelf hardware right now!!!** It defines the problem to a fixed cost at each property, with essentially a fixed cost installation.

Pay for it via payment system called a jeffybond (see attached). I applied for a copyright on the term a couple of weeks ago.

**THIS WOULD COST THE STATE NOTHING!!!**

Jeffrey Cutler  
East Lampeter Township Tax Collector

I am a Drexel University Graduate, AND TRYING TO SAVE THE CONSTITUTION!!

[https://www.youtube.com/watch?v=mgCle8F\\_zUk](https://www.youtube.com/watch?v=mgCle8F_zUk)

<https://search.yahoo.com/yhs/search?p=youtube+tax+collector+obamacare&ei>

<http://www.americanfreedomlawcenter.org/case/jeffrey-cutler-v-u-s-dept-of-health-human-services/>

<http://thenewrevere.com/2015/07/exclusive-consensus-is-the-new-word-for-censorship/>

[stokenl@michigan.gov](mailto:stokenl@michigan.gov)

Pennsylvania or any other authorized government state government agency allows the sale of **Jeffy Bonds** (this is effectively a DIY municipal bond). This would allow townships, schools counties to raise extra money and **incur NO LIABILITY OR DEBT**. The way it works, anyone could purchase dividend paying stocks and instead of paying 3.07% to the State of Pennsylvania, the state converts it to a 5 year minimum and ten year maximum Municipal Bond by **Contract. A payment of 15, 20, or 30 percent of the dividend is part of the contract. The rest of the dividend is paid as Tax Free Interest to the holder.** The symbol for a purchase PPL stock would be listed as PAPPL2020112530. The only loser is the Federal government. For the first time schools would be partially supported by **Investment** instead of **Tax**.

---

**From:** Weise, Kevin (MSP)  
**Sent:** Tuesday, February 16, 2016 9:40 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** FW: 4/4  
**Attachments:** FW 6.zip

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Sachs, Tori (GOV)  
Sent: Tuesday, February 09, 2016 7:40 PM  
To: Weise, Kevin (MSP); Lord, Daniel (DNR)  
Subject: 4/4

Hopefully this goes through and is the last one.

Tori Sachs  
External Affairs Advisor  
Office of Gov. Rick Snyder  
C: 517-775-3688

---

**From:** Stoken, Laura (GOV)  
**Sent:** Friday, January 29, 2016 3:46 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: We'd like to offer our services to the people of Michigan

Forwarding for your determination

**From:** Jim Kissane [<mailto:jim@yourlifearchive.com>]  
**Sent:** Friday, January 29, 2016 3:14 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Cc:** Susan Haines <[susanh@theonefile.com](mailto:susanh@theonefile.com)>  
**Subject:** We'd like to offer our services to the people of Michigan

Hon. Governor Snyder,

The way the state of Michigan responds to the water crisis in Flint (and other cities), will be recorded in history. We would like to help write the page that shows how your office responded compassionately and quickly to this incident, showing benevolence throughout the process.

My company is prepared to help your office immediately respond to this crisis, providing a visible and tangible demonstration to the rest of the country of your commitment to limiting further harm to your constituents, and mitigating the state from unnecessary legal expense.

Mrs. Susan Haines, of my staff has been in conversation with the RNC leadership, and it was their recommendation that my company reach out to you.

We are prepared to provide immediately, a means for the thousands of families to securely gather and archive and catalog their medical information, so that in the inevitable lawsuit that follows, the resident's information has been gathered and protected, and that the financial damage of a huge settlement is contained.

My firm operates one of the most secure encrypted data vaults in North America, and the principals of my leadership team are well experienced in responding to crisis situations, where technology needs to be pressed into service to serve the public good.

If this proposition suits your needs and interest I would invite you or a member of your staff to reach out to me so we can begin a dialog, which we can then turn into a proposal to the state.

Sincerely,

Jim Kissane, CEO/President  
YourLifeArchive Inc.  
*home of* **TheOneFile**  
(800) 657-9067  
(813) 765-4225 (my personal cell phone)



---

**From:** Stoken, Laura (GOV)  
**Sent:** Friday, January 29, 2016 3:47 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Water Emergency - Shampoo Wipes to Mitigate Damages  
**Attachments:** EE Brochure - Inside.pdf; EE Brochure - Outside.pdf

For your determination

-----Original Message-----

From: [ronald@essentialeffects.com](mailto:ronald@essentialeffects.com) [ronald@essentialeffects.com](mailto:ronald@essentialeffects.com) [<mailto:ronald@essentialeffects.com>]  
Sent: Friday, January 29, 2016 2:26 PM  
To: Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
Subject: Water Emergency - Shampoo Wipes to Mitigate Damages

Dear Governor Snyder:

My name is Ron Van and I am President of a company, Essential Effects, LLC, based in California. I am aware of the ongoing water crisis in Flint, Michigan.

My company manufactures a new product, rinse-free Shampoo Wipes, that I believe may be of necessity to residents of Flint during the water crisis. Our rinse-free Shampoo Wipes allow users to clean their hair without using water.

Our company is about to supply our Shampoo Wipes to the Marine Corp. Exchange, but I believe that our wipes may also come in handy for the residents of Flint as we have heard about alleged claims of hair loss by residents who have been using water to bath and shower. I trust that the State and City of Flint will do everything it can to mitigate any potential damages that residents may later seek.

I encourage you to visit our website at [www.essentialeffects.com](http://www.essentialeffects.com). I also enclose our product brochure. We are providing our Shampoo Wipes to the Marine Corp. Exchange at our lowest possible price, which is \$1 per wipe (not including shipping). We would gladly honor this price to the State and the City of Flint, in light of this water crisis, if there is any interest in providing these Shampoo Wipes to Flint residents.

Please contact me at (310) 346-4789 if the State has any interest in our product. We do have a limited stock on hand and so I hope to hear back from you soon.

We can ship as early as next week. I look forward to hearing from you shortly.

Regards,  
Ron Van  
President  
Essential Effects  
[www.essentialeffects.com](http://www.essentialeffects.com)  
[ronald@essentialeffects.com](mailto:ronald@essentialeffects.com)  
(310) 346-4789

# METRA INDUSTRIES

FUI RB/HH (JA/TS)  
KCreagh

50 Muller Place  
Little Falls, New Jersey 07424  
(973) 812-0333  
FAX (973) 812-0330

January 26, 2016

Mayor Dr. Karen Weaver  
1101 S. Saginaw Street  
Flint MI 48502

Dear Mayor Weaver,

We are writing regarding your efforts to correct the Flint drinking water problems. In many cases rehabilitation of existing water mains is more beneficial than replacement. Rehabilitation via in-situ cement mortar lining is a proven long term effective means of corrosion prevention. It is economical, effective, and minimally disruptive. We are enclosing the following three reference documents to assist in correcting the Flint water system problems.

1. American Water Works Association (AWWA) standard C602 for Cement Mortar Lining of Water Pipelines in Place 4 in. and Larger.
2. American Water Works Association (AWWA) manual M28 Rehabilitation of Water Mains (partial copy of manual)
3. History and Development of Water Main Rehabilitation by In-situ Cement Mortar Lining Technology

Metra Industries is proficient in the performance of In-Place Cement Mortar Lining of water mains as well as many other rehabilitation technologies. Please call if you have any questions. We would be very happy to help. Thank you.

Very Truly Yours,



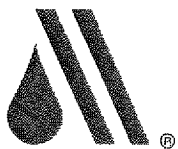
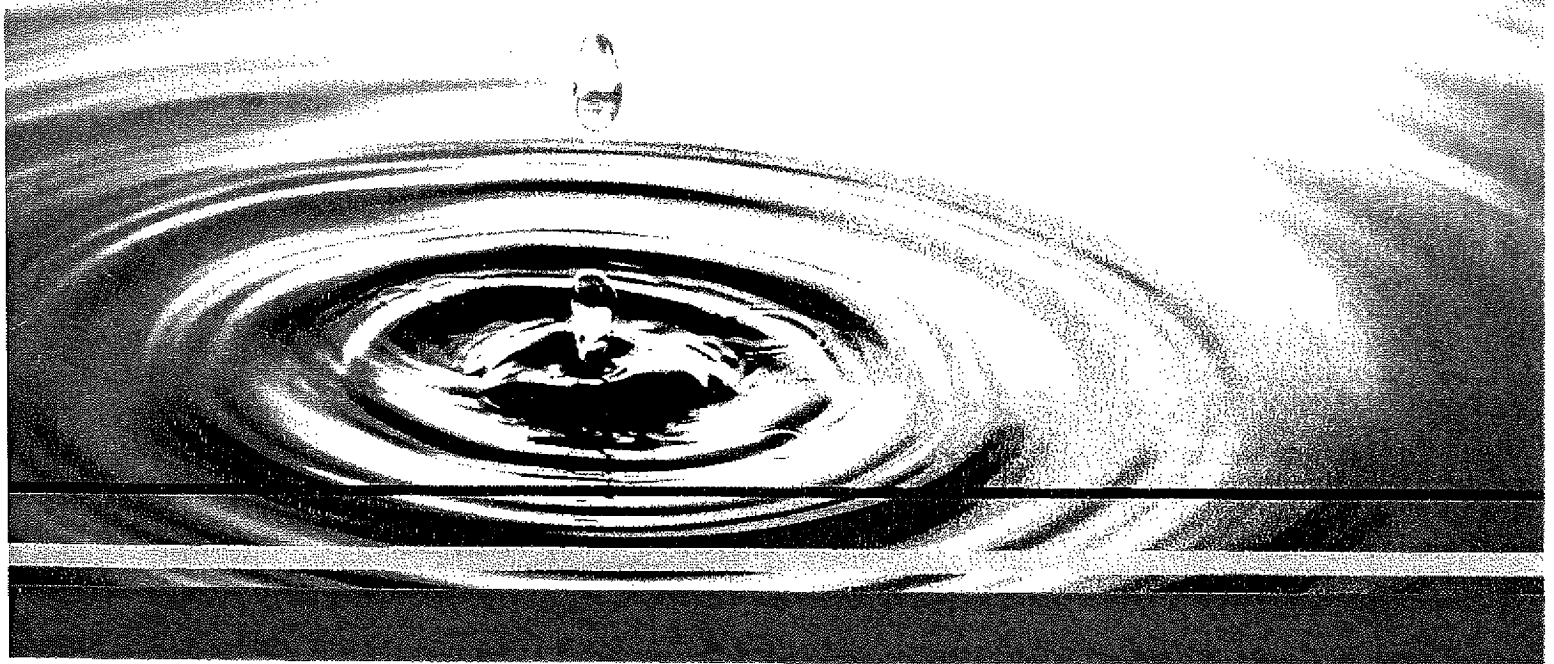
Joseph W. Dioslaki, P.E.  
Project Manager

CC: Governor Rick Snyder  
Bob Kaplan, EPA Region 5 Deputy Administrator  
Miguel Del Toral, EPA Region 5 Ground Water Drinking Water Branch Relations Manager  
Darren Lytle, EPA Office of Research and Development Scientist  
Michael Schock, EPA Office of Research and Development Scientist  
Jeff Kempic, EPA Office of Water Lead and Copper Rule Technical Lead  
Tim Henry, EPA Region 5 Water Division Deputy Director  
Tom Poy, EPA Region 5 Ground Water Drinking Water Branch Chief

# Rehabilitation of Water Mains

MANUAL OF WATER SUPPLY PRACTICES

28



American Water Works  
Association

Advocacy  
Communications  
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Education and Training  
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Sections

The Authoritative Resource for Safe Drinking Water™



## Chapter 1

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# Distribution System Performance Criteria

### WATER QUALITY

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The quality of treated drinking water may vary considerably, both from system to system and within a system, as a result of deterioration after it leaves the treatment plant and comes in contact with the interior of distribution system piping. Over time, changes in water chemistry can cause problems throughout the distribution system, ultimately affecting the quality of the water delivered to the end user.

The specific nature of distribution system water quality problems vary with water chemistry. However, the majority of these problems fall into three categories: sedimentation, encrustation, and fouling.

#### Sedimentation

Sedimentation is the process whereby solids settle out of water moving at low velocity in a main, reducing interior cross section and capacity. Source water pipelines or pipelines carrying improperly treated water can be subject to deposits of sand, silt, or organic materials. In extreme cases, sedimentation can also contribute to hydraulic problems, particularly at low points in the pipe.

Even slight overtreatment of water can result in posttreatment precipitation within the distribution system of deposits containing alum, lime, or calcium carbonate. A utility may promote controlled precipitation to lay down a thin layer (eggshell coating) of calcium carbonate for protection of the metallic pipeline interior. However, excessive or irregular deposits can easily occur, requiring cleaning of the distribution system.

#### Encrustation

Encrustation is a by-product of corrosion (tubercles) mixed with mineral deposits, such as iron, manganese, and carbonates. Before the 1960s, many iron pipes were

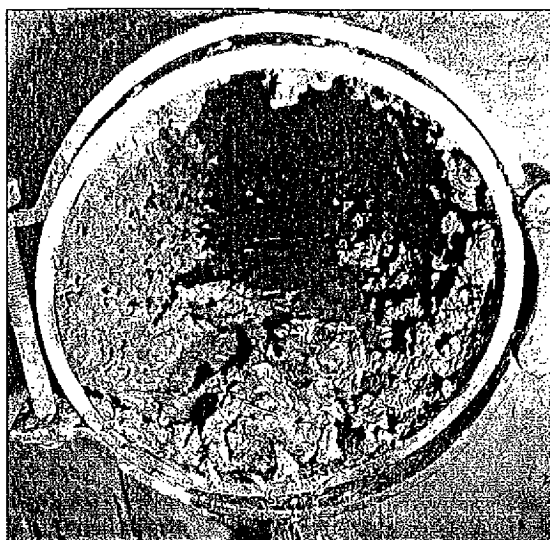


Figure 1-1 Pipe with problems caused by corrosion

installed without linings to protect the interior surfaces. These unlined pipes often experience internal corrosion.

As corrosion occurs, the interior of the pipe develops pits from which material is removed and tubercles where material is deposited (Figure 1-1). Additionally, corrosion can create "red water" complaints from end users. Corrosion may result from direct oxidation or electrolytic action, both fostered by aggressive water. Tuberculation can vary with water chemistry (from very soft to very hard water). Proper water chemistry does help to prevent additional buildup of encrustation. Most encrustation can be removed by cleaning. Perhaps the most significant water quality problem presented by encrustation are the potential difficulties maintaining a disinfectant residual. Removal of encrustation often increases a system's disinfectant residual; however, regrowth of encrustation is likely in unlined iron pipes.

### Fouling

Fouling represents a very significant problem, but one that is not always well-understood. A fouling problem can develop with any type of pipe material. The condition is usually caused by natural biological activity and results in buildup of an organic deposit on the interior of the pipe. Although this deposit is often soft and filamentous, it can severely affect water turbidity and cause taste-and-odor problems. Bacteriological activity from organisms, such as iron-fixing bacteria, can result in development of slimes and severe deposits in the pipe.

## HYDRAULIC PERFORMANCE

In addition to water quality problems discussed so far, any buildup inside distribution system piping can greatly reduce the hydraulic performance of the system. Hydraulic engineers have long determined flow in pipes by using the empirically derived Hazen-Williams formula:

$$V = 1.318Cr^{0.63}s^{-0.54}$$

Table 1-1 Hazen-Williams coefficient

Condition	C
New pipe	130-140
Fair to normal (interior clean)	100
Significant reduction in pipe capacity	70
Severe problem—interior cross section greatly reduced	30-50

where:

- $V$  = velocity, in ft/sec (m/sec)
- $r$  = hydraulic radius, in ft (m), which is the cross-sectional area of the pipe divided by the wetted perimeter
- $C$  = Hazen-Williams roughness coefficient
- $s$  = slope of the hydraulic grade line, in ft/ft (m/m)

$C$  (often called the "C factor") represents the coefficient of friction, a measure of the roughness of the interior of the pipe. Expressed in terms of  $C$ , the formula can be stated as:

$$C = 2,466QD^{-2.63}H^{-0.54}L^{0.54}$$

where:

- $C$  = Hazen-Williams roughness coefficient
- $Q$  = Quantity of flow in a pressure conduit, in mgd ( $m^3/d$ )
- $D$  = Nominal diameter of the pipe, in in. (mm)
- $H$  = Head loss, in ft (m) of water
- $L$  = Length of pipe, in ft (m)

The  $C$  factor, and hence the flow in a pipeline, depends on the type of pipe and its interior condition (see Table 1-1). For a given velocity, increased internal surface roughness (changing laminar to turbulent flow) can lead to a reduction in overall pipeline efficiency.

Field testing techniques allow distribution system operators to calculate Hazen-Williams  $C$  factors for their systems. These data help in making informed decisions about which process to employ to restore hydraulic efficiency. Collecting data for the Hazen-Williams  $C$  factor after employing any cleaning or pipe rehabilitation process is also a very useful way to gauge the impact of the system improvements.

## STRUCTURAL PERFORMANCE AND LEAKAGE

The structural performance of a water main may deteriorate over time because of a number of effects. Cast-iron, ductile-iron, and steel piping may be subject to internal and/or external corrosion, resulting in pitting and wall thinning, which can lead to leakage and eventual burst failures. Cement-based pipes such as asbestos-cement and concrete piping may also be subject to deterioration due to corrosion of the cement matrix and/or steel reinforcement. In addition, all types of pipe, including thermoplastics, may be subject to joint failure between pipe lengths and hence excessive leakage, which can in turn lead to washout of bedding and subsequent structural failure.

Such structural and leakage failures can have direct consequences such as high maintenance costs, water quality problems, service interruptions, and loss of valuable treated water. They may also have indirect consequences in terms of the economic and public relations costs of damage associated with bursts and the overall public image of the service provider.

## REHABILITATION SOLUTIONS

---

This manual describes a number of possible solutions to problems arising from corrosion and deposition. These range from simple periodic cleaning to replacement of the pipe using "trenchless" techniques. All of the solutions discussed in the manual make some use of the existing pipe, either as part of the rehabilitated system (renovation solutions) or as a convenient route for installation of new piping (replacement solutions). Solutions involving installation of a replacement pipe along a new route, such as open trench laying, directional drilling, and microtunneling, are outside the scope of this manual.

Selecting the optimal solution to a specific pipeline problem is a complex process involving both technical and economic considerations. Both the American Water Works Association Research Foundation and a number of AWWA technical committees are developing computer-based decision tools to assist utility engineers in this process. This work is expected to come to fruition while this edition of the manual remains in effect. In the meantime, the following guidelines may prove useful.

## SELECTION OF REHABILITATION SOLUTIONS

---

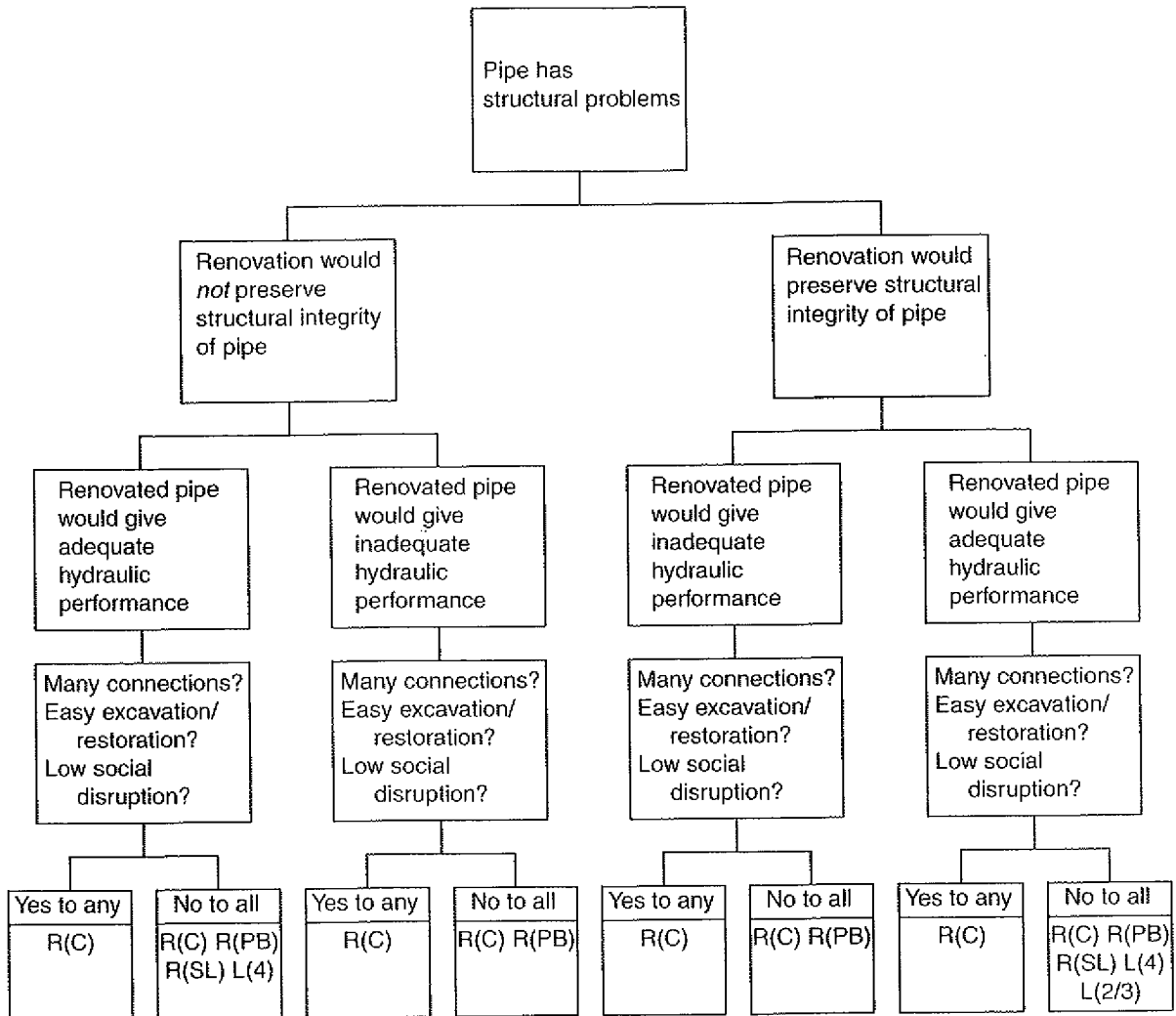
Key elements in the selection of a rehabilitation solution are

1. The exact nature of the problem(s) to be solved
2. The hydraulic and operating pressure requirements for the rehabilitated main
3. The materials, dimensions, and geometry of the water main
4. The types and locations of valves, fittings, and service connections
5. The length of time in which the main can be taken out of service
6. Site-specific factors

The aim of the selection process is to consider all these factors to arrive at the most cost-effective, technically viable solution. Ideally, the cost estimate should include not only direct contracting and related costs but also indirect costs associated with public disruption and longer-term maintenance and other "life cycle" costs.

One approach to technique selection is summarized in Figures 1-2, 1-3, and 1-4. Together, these charts provide a framework for selecting or rejecting groups of techniques, depending on the nature of the performance problems, hydraulic requirements, and some site-specific factors. In some cases, the charts indicate use of lining techniques classified as either Class I (nonstructural), Class II/III (semistructural), or Class IV (structural). A more detailed discussion of this classification system and of other key design issues associated with such lining techniques is presented in appendix A.

The figures do not list cleaning as a solution for water quality or flow and pressure problems. Cleaning with one of the various techniques discussed in the manual may well offer the lowest-cost immediate solution to many of these problems. It may offer a long-term solution if repeated as required or combined with chemical treatment of water to prevent or delay recurrence of the original problem. However, cleaning is more frequently used as a necessary preliminary step before carrying out one of the lining processes described in the manual.



R(C)—Replacement (conventional or boring/directional drilling)  
 R(PB)—Replacement (pipe bursting)  
 R(SL)—Replacement (slip-lining)  
 L(2/3)—Lining (semistructural—Class II/III)  
 L(4)—Lining (structural—Class IV)

Figure 1-2 Selection of rehabilitation techniques to resolve structural problems



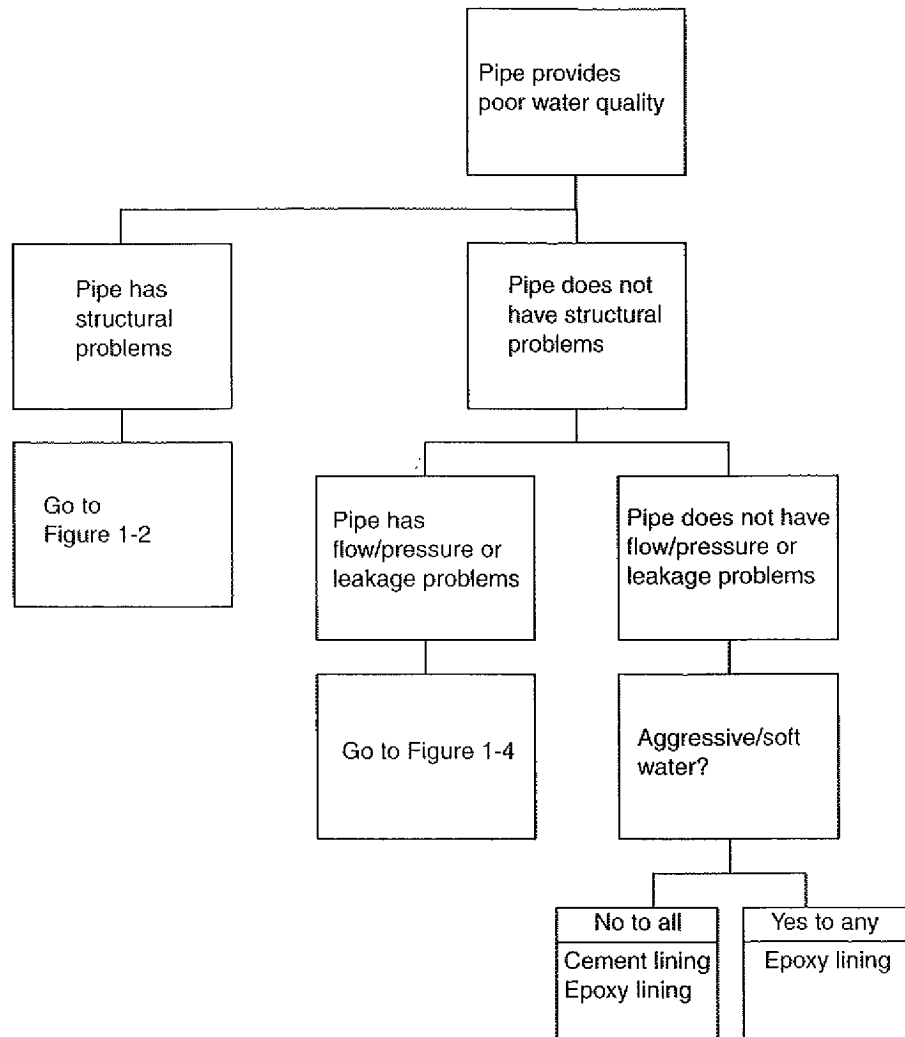
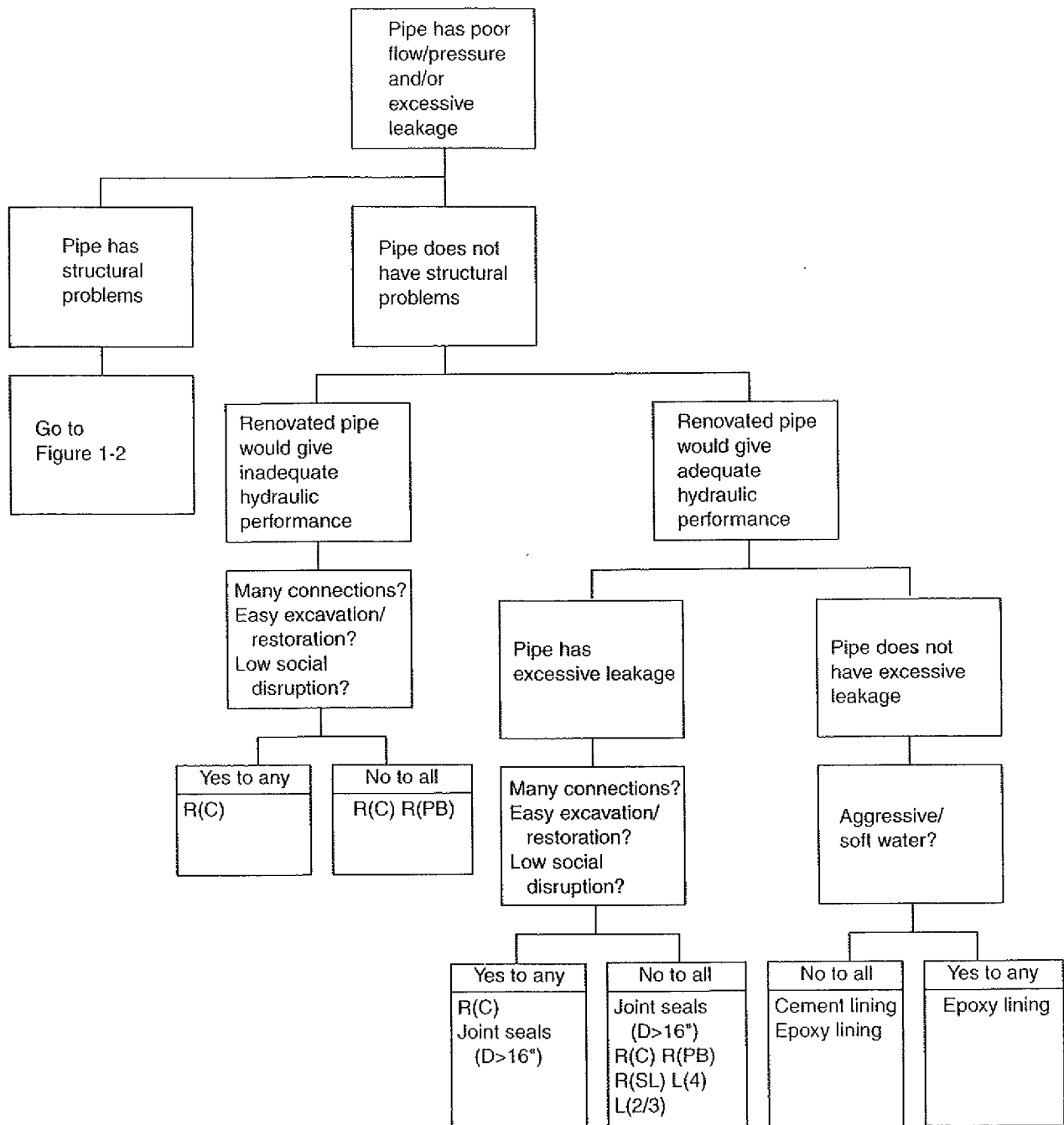


Figure 1-3 Selection of rehabilitation techniques to resolve water quality problems



R(C)—Replacement (conventional or boring/directional drilling)  
 R(PB)—Replacement (pipe bursting)  
 R(SL)—Replacement (slip-lining)  
 L(2/3)—Lining (semistructural—Class II/III)  
 L(4)—Lining (structural—Class IV)

Figure 1-4 Selection of rehabilitation techniques to resolve flow, pressure, and leakage problems



## Chapter 2

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# Cleaning

Water mains can be cleaned in place in a water distribution system using one or more of the following methods:

- Flushing
- Cable-attached devices
- Fluid-propelled devices
- Power boring

Dispose of cleaning water and debris in accordance with applicable regulations. Refer to AWWA Standard C651, *Disinfecting Water Mains*, for guidance in disinfecting pipelines before returning them to service.

## FLUSHING

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Water main flushing has a definite place in distribution system operation. It is particularly effective for light cleaning jobs. Mains should be flushed to clean newly installed and repaired mains prior to and after disinfection. Routine flushing is needed to remove impurities that cause complaints or are considered hazardous to public health. Refer to the AWWA handbook titled *Maintaining Distribution-System Water Quality* for specific flushing program guidelines.

Flushing should never be considered the only solution to water quality problems identified in the distribution system. Proper design and operation of distribution facilities and an effective backflow-prevention program should also be part of any effort to maintain water quality. While quality control is the primary purpose of flushing, careful observation of system hydraulics during flushing may indicate problems in mains, such as inadequate capacity, undiscovered restrictions, or closed or partially closed valves.

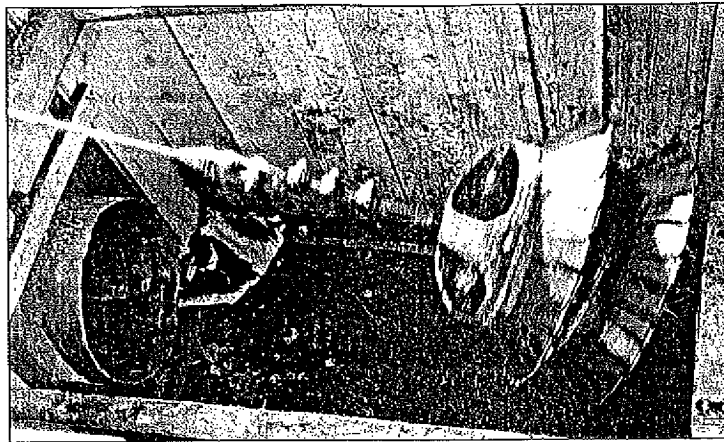


Figure 2-1 Drag cleaning, in which a winch pulls a mechanical cleaner through the pipe

## CABLE-ATTACHED DEVICES

Systems that use cable-attached devices for cleaning distribution mains include drag cleaning, hydraulic-jet cleaning, and electric scraper cleaning. In each case, the length of hose or cable determines the length of the pipe section that can be cleaned.

### Drag Cleaning

In drag cleaning, a winch pulls a mechanical cleaner, composed of a series of steel scraper blades and rubber squeegees, through the pipe (Figure 2-1). The mechanical cleaner is usually flexible, allowing it to negotiate bends of up to 45°. Both ends of the cleaner are fastened to steel cables, which are attached to winches at either end of the pipe section to be cleaned. The cleaner is winched first in one direction and then in the other, and this process continues until the pipe is satisfactorily cleaned.

This cleaning method offers important advantages:

- Cleaning can be accomplished when water pressure or volume is insufficient to propel a hydraulically driven device, or when excessive pressure would be required for hydraulic cleaning, especially with small-diameter mains.
- Very hard deposits and encrustation can be removed.
- Dry solids allow easy disposal.

### Hydraulic-Jet Cleaning

To clean pipe with a hydraulic jet, a special nozzle attached to a hose emits a jet of water at high velocity and pressure that removes debris and deposits from the interior of the pipe. Nozzle pressures of 1,000 to 10,000 psi (6,900 to 69,000 kPa) and above can be generated using this system. The jetted stream of water must bear hard enough against the scale or deposit to breach it and dislodge particles. Once the scale or depositional material is penetrated, the fluid forms a wedge between the deposit and the surface and strips off the deposit, exposing the clean metal surface. In many jetting operations, dislodged particles are entrained in the jetting stream and effectively dislodge more particles. The principal advantage of this method is removal of very tough deposits.

## Electric Scrapers

Electric scrapers are used to clean large-diameter lines. A variation of this cleaning method is the use of an electrically powered, operator-driven scraper. This power-driven scraper incorporates revolving brushes or rotating arms to clean the line.

The principal advantage of this method is the ability of the operator to evaluate the effectiveness of the cleaning process as it proceeds through the line.

## FLUID-PROPELLED CLEANING DEVICES

This section of the chapter describes fluid-propelled cleaning devices such as foam pigs and mechanical metal scrapers.

### Foam Pigs

Foam pigs are flexible, bullet-shaped cleaning tools manufactured of high-quality (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density) open-cell polyurethane foam, some coated with polyurethane synthetic rubber coatings (70 lb/ft<sup>3</sup> [1,121 kg/m<sup>3</sup>] density). (See Figures 2-2 and 2-3.) Pigs are propelled down water mains by the pressure and volume of water in the distribution system. Cleaning is accomplished by the frictional drag and flexible characteristics of the foam pig, which removes foreign objects, iron tuberculation, and other matter as it passes through the pipes, leaving the interior surfaces as smooth and free from irregularities as age, attrition of use, and type of piping material will allow. When water pressure is applied for propulsion, a certain amount of water bypass (approximately 10 percent) helps to keep loose debris suspended out in front of the foam pig (Figure 2-4).

Cleaning of deteriorating mains generally requires a series of swabs and foam pigs applied in progressively larger diameters (referred to as *progressive pigging*) until the pipe is restored to its original diameter.



Figure 2-2 Foam pig: A bullet-shaped device made of polyurethane foam



Figure 2-3 A foam pig with hardened coatings

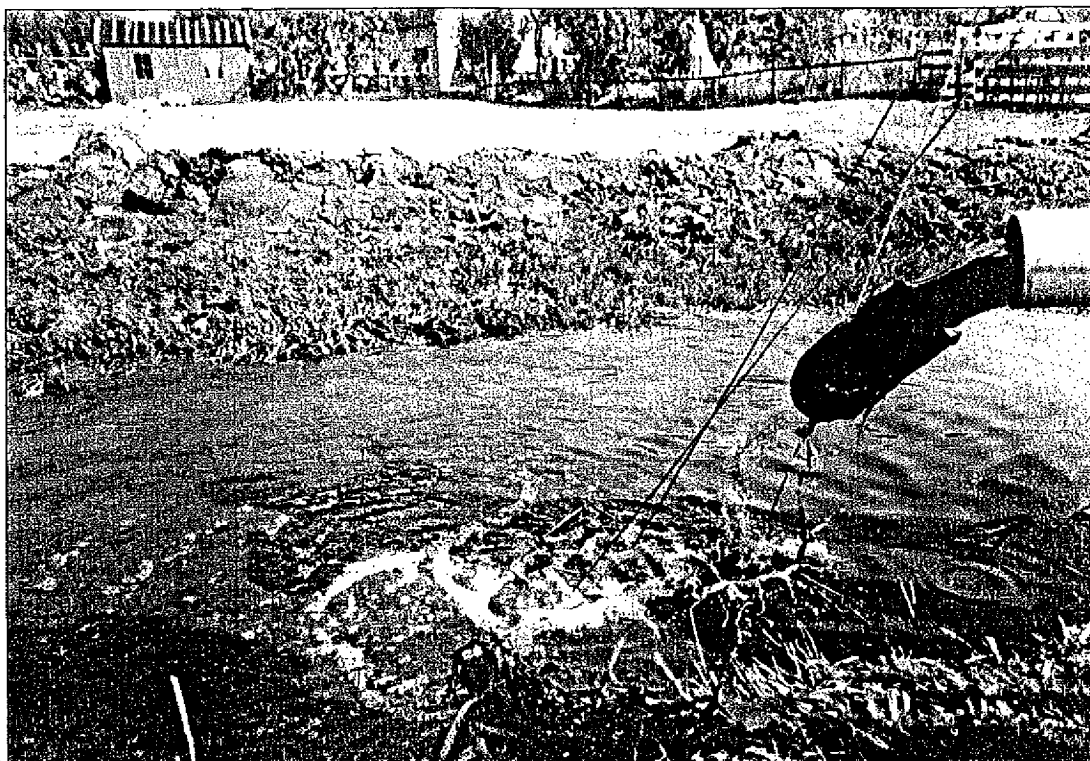


Figure 2-4 Loose debris flushed ahead of the pig

**Operating procedures.** The following steps briefly describe the most common operating procedures for cleaning water distribution mains with foam pigs. The described procedure is based on a best-case scenario; actual procedures may vary for certain applications.

1. Review drawings of lines to be cleaned to identify a) possible entry and exit points, and b) all valves to be used to isolate the section of system to be cleaned.
2. Exercise all valves in the section to be cleaned before the pigging operation to ensure isolation of the section to be cleaned.
3. Flow tests should be performed before and after the pigging operation to evaluate the efficacy of the cleaning and determine the resulting condition of the water main.
4. Provide adequate means for disposing any debris exiting the pipe. Storm drains may be suitable for disposing of small amounts of light debris. However, the best arrangement for handling large amounts of heavy debris would be to direct the flow to a temporary settling pond, the bed of a dump truck, etc., to facilitate removal of solids once the water has drained away.
5. Notify all affected customers (commercial and residential) as well as fire department officials of the scheduled interruption of service.

6. Confirm that all valves in the section to be cleaned are fully opened and working properly and that the section is properly isolated. Foam pigs follow the direction of flow, which must be controlled by the valve locations.
7. Introducing the foam pigs into the water main may be accomplished either by hand or through the use of mechanical equipment commonly called a *pig launcher*. Several types of fire hydrants, once they are disassembled, can be used as entry and exit points for pigging of some water mains 6 in. (150 mm) and smaller (Figure 2-5).
8. To produce the best cleaning results, foam pigs should travel through a water main at a rate of 3 to 9 ft/sec (9 to 24 m/sec).
9. Sequence of foam pig runs:
  - a. Introduce a line-sized, soft-foam swab (1.5 to 2.0 lb/ft<sup>3</sup> [24 to 32 kg/m<sup>3</sup>] density, uncoated), called a *prover pig*, to determine the actual effective inside diameter of the pipe to be cleaned. The swab wears down while passing deposits in and along the pipe wall.
  - b. Introduce a line-sized bare foam pig (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density, uncoated) to remove soft deposits and help gauge the true opening in the line.
  - c. Introduce a line-sized, coated foam pig (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density, coated with urethane elastomer). This type of foam pig should be run repeatedly until one emerges in reusable condition. A water line with excessive buildup should be pigged using the progressive pigging method, beginning with undersized, coated foam pigs and gradually increasing the size in successive passes until a line-sized foam pig emerges in reusable condition.

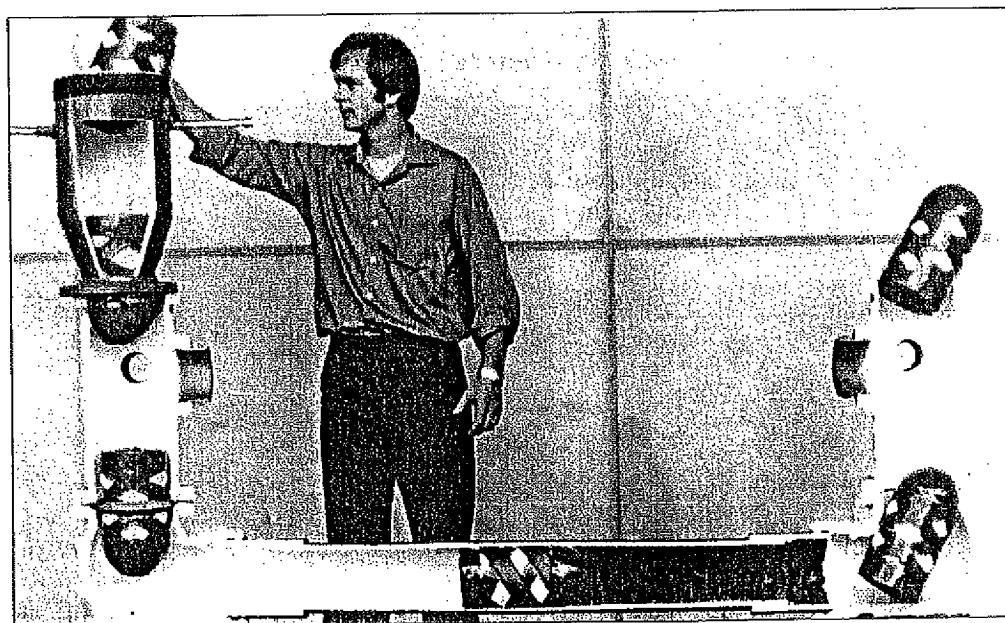


Figure 2-5 Pigs launched through a disassembled fire hydrant for a 6-in. (150-mm) or smaller line

- d. Line-sized, wire brush foam pigs may be introduced following these applications for final removal of extremely hard deposits (such as tuberculation).
  - e. Introduce a line-sized swab (1.5 to 2.0 lb/ft<sup>3</sup> [24 to 32 kg/m<sup>3</sup>] density foam, uncoated) to sweep out any loose debris and determine the effectiveness of the cleaning process.
10. Flush and disinfect as required.
  11. Place the water main back into service.

Foam pigs are flexible enough to negotiate short-radius bends and pass through full-port valves and some types of plug valves. Their capability to be compressed up to 35 percent of their cross-sectional area allows them to pass through multidimensional lines and full-port valves. A piggable valve is one through which a pig will pass every time. Foam pigs do not pass through butterfly valves. Foam pigs can clean long sections of piping from one entry point, thus reducing the number of excavation sites required. Pigging is a fast, simple, and cost-effective method of returning most deteriorated piping systems to as-designed capacity and efficiency.

## Metal Scrapers

A metal cleaning scraper consists of a steel frame shaped like a piston. Specially tempered steel blades are attached around the scraper at various angles to create a scraping and brushing action (Figures 2-6 through 2-8). The cleaner is propelled through the water main by means of water pressure.

Cleaning is often accomplished with a single pass in a continuous operation; sometimes, however, interior pipe conditions may require additional passes. The length of pipeline that can be cleaned hydraulically in one operation is limited only by the availability of volume and pressure water and a proper means of disposing of water and deposits. An opening must be provided at each end of the section to be cleaned for entry and exit of the cleaning tool. The volume of water required to hydraulically clean

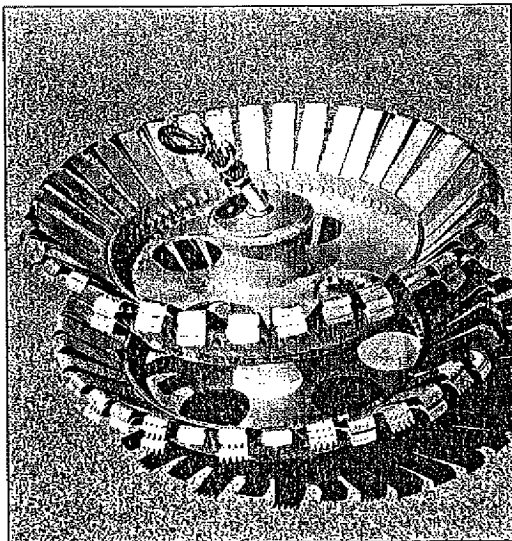


Figure 2-6 Scraper unit with specially tempered steel blades

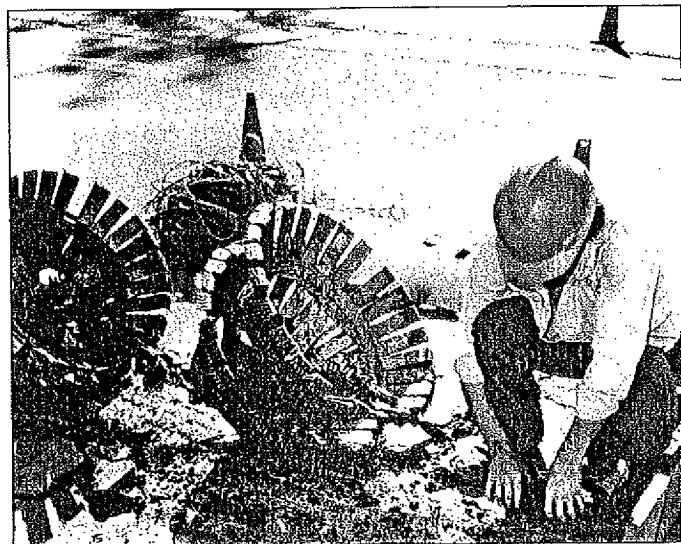


Figure 2-7 Several scraper units assembled together in the field



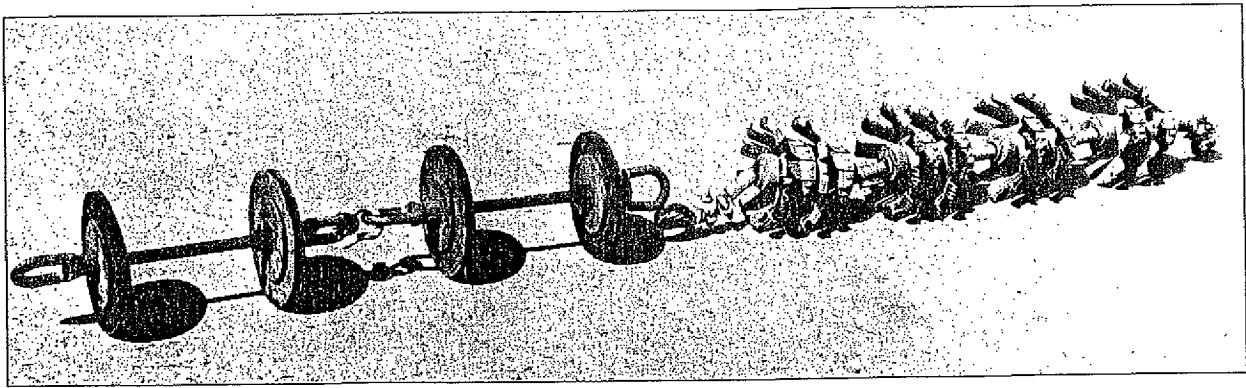


Figure 2-8 A series of disks to act as a hydraulic piston, pulling scrapers through the line

a pipeline will depend, to a great extent, on how dirty the water is. Sufficient water must be added behind the cleaner to fill the pipe as the cleaner moves ahead.

The water that passes the cleaner scours the wall of the pipe and washes ahead the material that is scraped off the pipe. While the velocity of water ahead of the cleaner is independent of cleaner speed, it must be sufficient to remove the deposits. Experience indicates that a flow velocity ahead of the cleaner of between 2 and 10 ft/sec (0.6 and 3.0 m/sec) is required to remove the deposits. In a small pipe, because a relatively large amount of material must be moved for the volume of the pipe, a relatively high velocity is required.

The cleaning water and deposits must be discharged from the pipeline in a way that avoids creating a nuisance or environmental problem. A sandbag dam can be constructed to create a pond for particle settlement (Figure 2-9). This allows the clean water to be decanted to a storm drain while any solid material is collected and properly disposed of. Another method is to pipe the water to a dump truck, catching the solids in the truck and allowing the water to run off into a storm drain.

**Operating procedures.** The following steps describe the operating procedures commonly used when cleaning water pipes with mechanical scrapers.

1. Review drawings of lines to be cleaned. Identify logical entry and exit points for the cleaning tool. Note all valves, service connections, and other components that must be opened or closed to isolate the line to be cleaned. Conduct C-factor tests (if not previously completed) to determine the condition of the line.
2. Excavate and install a spool piece at each entry and exit point (Figure 2-10). Obtain a sample of deposits in the line and determine their average thickness.
3. Determine source of cleaning water (e.g., reservoir, feeder mains, parallel lines, etc.). Cleaning for lines 12 in. (300 mm) in diameter and smaller may require auxiliary pumps to provide adequate flow and pressure; flow and pressure within the system generally are adequate to clean mains over 12 in. (300 mm) in diameter.
4. Provide suitable means for disposing water and removed solids.
5. Notify all affected commercial and residential customers, as well as fire department officials, of the scheduled interruption of service.

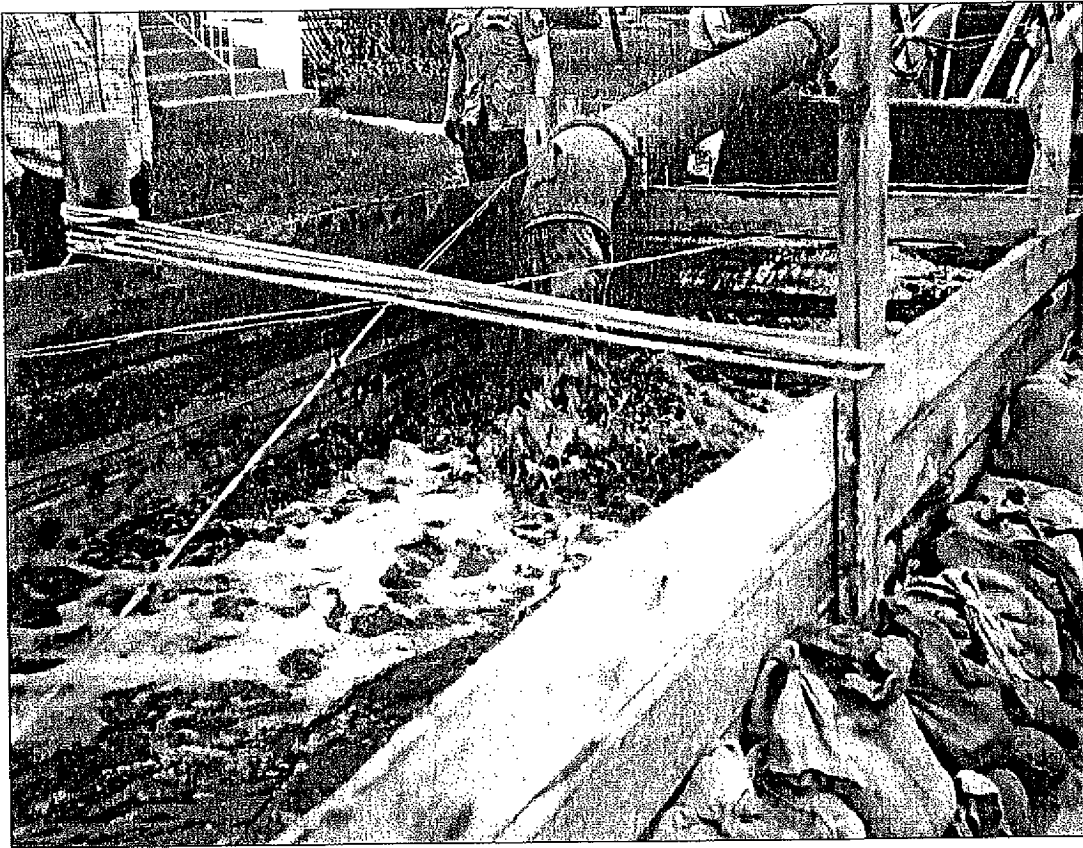


Figure 2-9 A sandbag dam to create a pond for particle settling

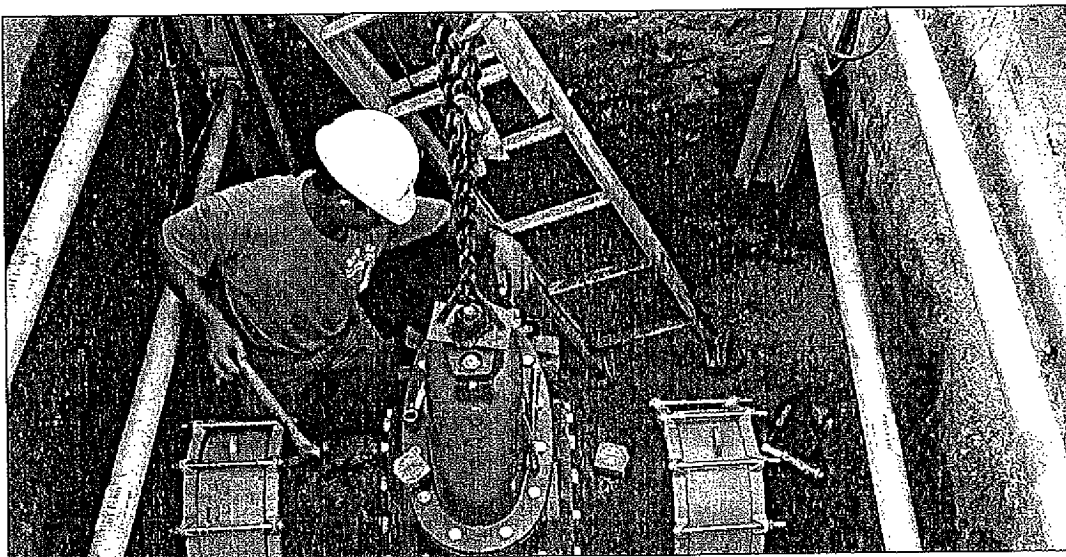


Figure 2-10 A spool piece installed at the entry and exit points for mechanical scrapers

6. Completely isolate the section to be cleaned. Close valves slowly to prevent water hammer.
7. Drain the line to be cleaned.
8. Open entry and exit points and remove spool piece sections. At the entry point, install a spool piece with the cleaning device inside. At the exit point, install discharge piping to bring discharged water up to ground level. Connect a water manifold with a throttle valve to control the rate of travel of the cleaning device.
9. Initiate the required flow into the main, and control speed with a bypass, blowoff valve.
10. Complete the cleaning operation.
11. Reclaim the cleaning device at the exit spool.
12. Repeat additional cleaning passes, as required.
13. Remove the insertion and retrieval sections, and replace permanent spool sections. Backfill and complete other necessary maintenance.
14. Flush and disinfect the line, as required. Conduct tests to determine its C factor following cleaning.
15. Return the line to service.

**Advantages.** Principal advantages of this method include

- Ability to clean long stretches of heavily deposited pipe at 2 to 10 ft/sec (0.6 to 3.0 m/sec) in a single, continuous operation
- Flexibility to negotiate standard bends (with maximum radius equal to 1½ pipe diameters) and elbows, inclined and vertical pipe sections, and to pass line-size gate valves, ball valves, tees, and corporation taps
- Ability to clean water mains with minimal excavation points
- Capability to restore water mains to C factors comparable to newly installed, unlined pipe

## CLEANING BY POWER BORING

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Power boring is a cleaning method using any hydraulically powered device capable of removing tuberculation and encrustation from cast-iron, ductile-iron, and steel pipe from 3 in. (76 mm) in diameter and above. This process is normally carried out in lengths of 400 ft (121 m) or greater. This cleaning method is described in the following paragraphs.

### Rack-Feed Boring Equipment

A rack-feed boring machine (Figure 2-11) is a compact, diesel-powered unit that uses hydraulic pressure to deliver up to 31 horsepower (23.1 kW) to a boring head. The boring head is designed to accommodate spring steel boring rods 15 ft (4.6 m) long fitted with spring-loaded quick-connects for connecting rods into suitable lengths for cleaning various lengths of pipe (Figure 2-12). The end of a boring rod assembly is fitted with a spring steel cutter blade or other cleaning tool, which rotates at 750 rpm through the pipe. (See Figure 2-13.) This cleaning process is conducted against a controlled, upstream water flow to flush loosened debris from the pipe.



## Chapter 3

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# Lining Techniques

A water utility may decide to line its distribution system pipes in response to a number of problems, such as those described in chapter 1. Lining a pipeline can eliminate the need for frequent flushing. Where leakage is a problem, linings have been installed to reduce or eliminate leaks through corroded areas of pipe or bad joints. A smooth lining in a corroding pipe helps to maximize hydraulic carrying capacity and minimize pumping costs. Additionally, some lining systems can correct structural failures, bridge breaks, and missing sections in corroded pipe, thus restoring service through a continuous pipeline.

In-place lining of water mains can be accomplished by one or more of the following general methods:

- Cement-mortar lining
- Epoxy lining
- Slip-lining
- Modified slip-lining
- Cured-in-place lining
- Structural lining
- Internal joint seals
- Pipe bursting

Internal joint seals and pipe bursting methods are discussed in chapters 4 and 5.

Refer to AWWA C651, Disinfecting Water Mains, for guidance on procedures for disinfecting pipelines before returning them to service.

## CEMENT-MORTAR LINING

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When alkaline-containing water comes in contact with iron, a chemical inhibitor against oxidation forms. Because the cement and sand in cement-mortar lining is porous, water can penetrate through the lining to the pipe wall, becoming alkaline in

the process. Consequently, pipe that is lined with cement mortar is protected from oxidation because of the composition of the portland cement.

Cement-mortar linings were first installed in existing pipelines using the centrifugal process in the mid-1930s. However, this method was limited to pipelines large enough for a person to enter. In the 1960s, remote lining processes were introduced. Today, cement mortar is applied to new ductile-iron pipes and most new steel pipes before installation, making this method a standard in the water industry.

Cement mortar is applied to the pipe wall by the rotating head of an electric or air-powered machine. The machine is placed in the pipe at 300 to 1,500 ft (92 to 458 m) intervals, depending on pipe diameter, valve locations, bends, profile, and alignment (Figures 3-1, 3-2, and 3-3). Mortar is pumped to the lining machine through high-pressure hoses or is mechanically delivered. The lining machine is equipped with rotating trowels or a conical drag trowel positioned just behind the dispensing head. As the machine moves through the pipe, it leaves a smooth, troweled (nonstructural) finish.

A reinforced cement-mortar lining may also provide structural improvement. Initially a 0.5-in. (13-mm) thick cement-mortar lining is placed on the pipe wall in the conventional manner without troweling. Using overlapping joints, a wire mesh is placed against the lining, which is then covered by another 0.5-in. (13-mm) troweled cement-mortar lining. The remaining steps in the process are the same as those for an unreinforced lining. This process is generally used to rehabilitate steel lines in poor condition due to extensive corrosion and in lines large enough for a person to enter. The reinforcing wire holds the cement mortar together, even if large holes develop in the pipeline. While this method will not necessarily prevent a blowout, it will extend the useful life of a pipeline.

## Operating Procedures

The following steps describe the common operating procedures used when lining a main with nonstructural cement mortar.

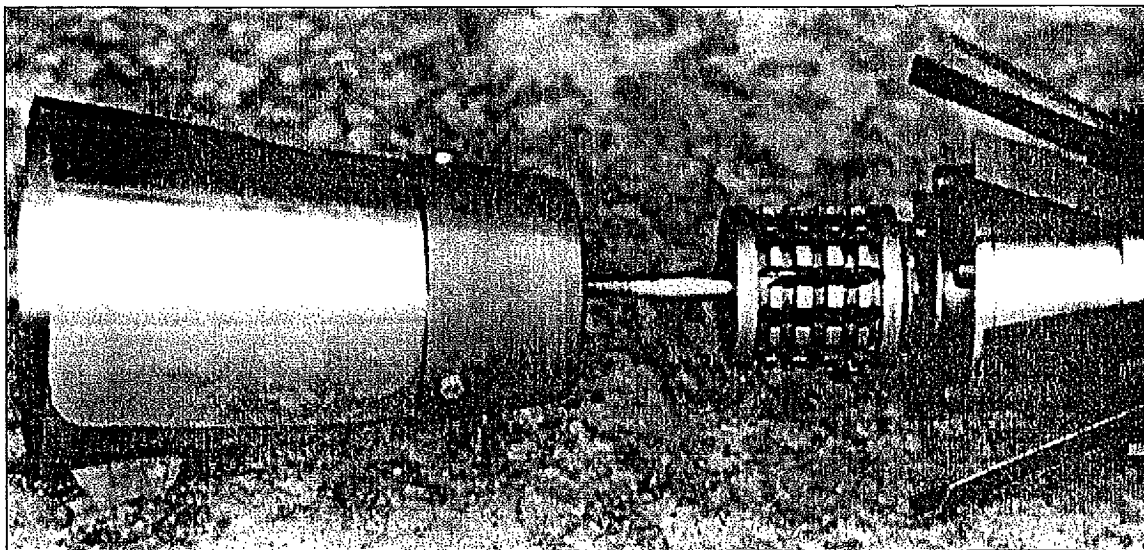


Figure 3-1 A cement-mortar lining machine for use in small-diameter pipe

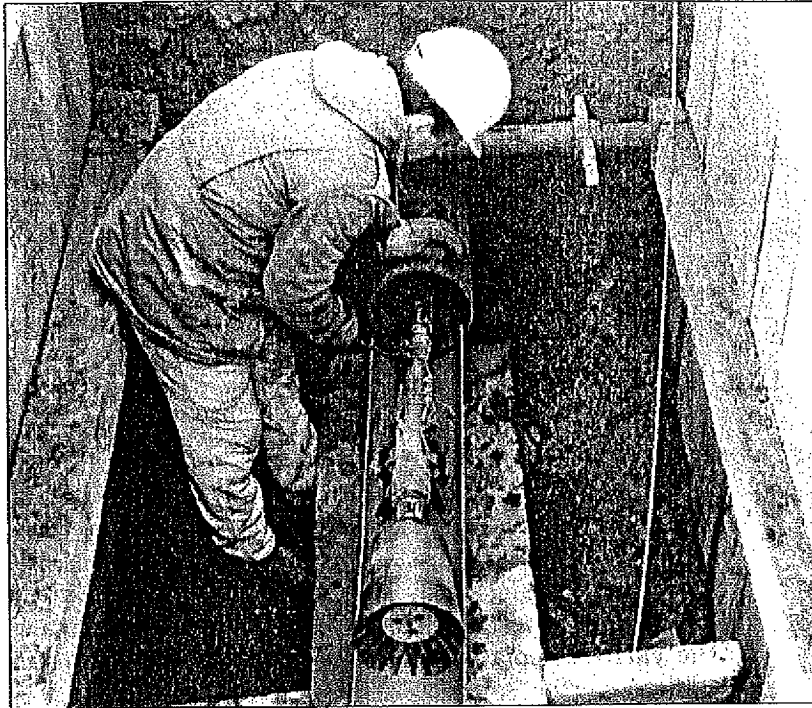


Figure 3-2 Introduction of a small lining machine

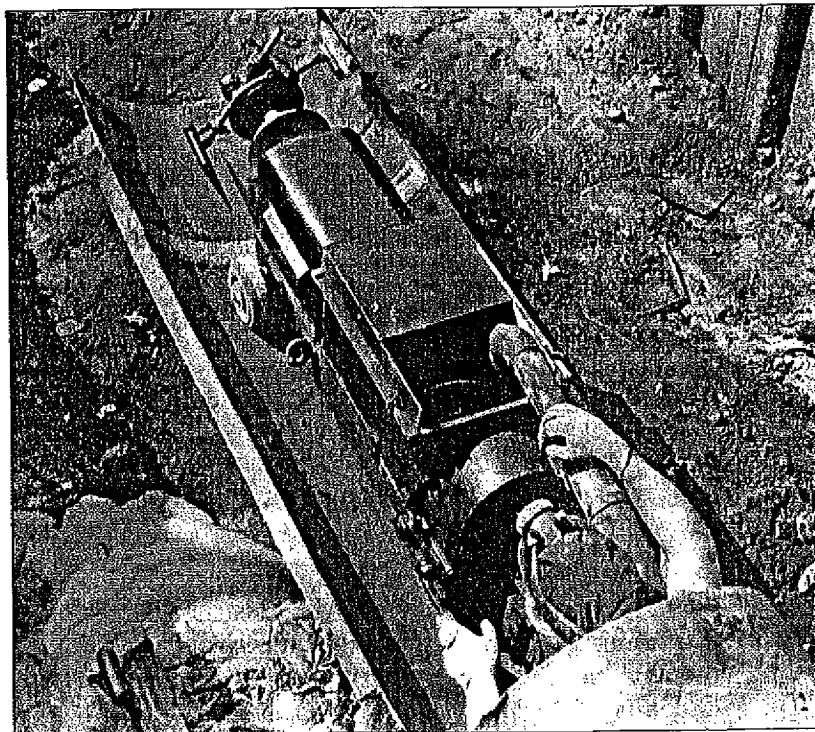


Figure 3-3 A cement-mortar lining machine for use in large-diameter pipe

1. Topography, bends, in-line valves, reduced-diameter in-line valves, and traffic conditions all influence the locations of excavations for access points to allow introduction of the lining equipment. These conditions also affect the method used to clean the pipe. All 22.5°, 45°, and 90° bends must be removed for 12-in. (300-mm) diameter pipe and smaller; 45° and 90° bends must be removed in 16-in. (400-mm) diameter pipe. Pipe 20-in. (500-mm) diameter and larger may require excavations near the bends or removal.

Full-diameter line valves must be removed and replaced, or the bonnets removed to clean the cement mortar from the interior of the valve if the pipe is too small for a person to enter. In large pipe, personnel can clean the valve interior from inside the pipe. Depending on their size, reduced-diameter or obstructed line valves may require removal or excavations on each side of the valves to allow lining.

2. The pipeline is generally dewatered by gravity and/or blowoffs, which remove most of the water. The contractor can then remove any remaining water lying in low spots with rubber squeegees pulled by winch through the pipe. At this time, inspection usually determines whether any branch valves are leaking. If a valve fails to stop water from entering the pipe to be lined, it is reexercised. If the leakage continues, a seal is installed or the valve is replaced. The pipe must be free of water when lining with cement mortar.
3. Cast-iron pipe is cut with a squeeze-type cutter, guillotine saw, handheld mechanical saw, or traveling saw, and a 4- to 5-ft (1.0- to 1.5-m) section of pipe is removed. Steel pipe is cut by torch, and a half cap is removed. Mechanical couplings are used for reconnecting cast-iron pipe, and butt straps are used to reconnect steel pipe.
4. A mixing van or concrete batch plant is located near the access hole where a cement-mortar mixture, consisting of one part silica-type sand and one part type II portland cement, is prepared. The mixed mortar is then delivered to the lining machine by one of several methods, depending on the pipe diameter.
5. In 4- to 24-in. (100- to 600-mm) diameter pipe (sometimes larger), the mortar is pumped through high-pressure hoses to the lining machine. Specially designed winches pull the lining machine through the pipe at a constant speed, ensuring a uniform lining thickness.
6. Mechanical feeding equipment shuttling between the access excavation (where the mortar is mixed) and the lining machine delivers mortar to the lining-machine hopper. The lining-machine operator then regulates the mortar application. Mechanically driven rotating trowels are used with this manually operated equipment.
7. Consumers' service lines and laterals less than 2 in. (50 mm) in diameter must be cleared after the lining application. This is done about 1 hr after the lining is completed, using compressed air to blow open the service line at the connection to the main. Laterals over 2 in. (50 mm) in diameter are not plugged by centrifugal lining and do not require excavation or blow back.
8. Water can be introduced into the line without pressure to allow curing 24 hr after completing the lining. The main can then be chlorinated, tested, and

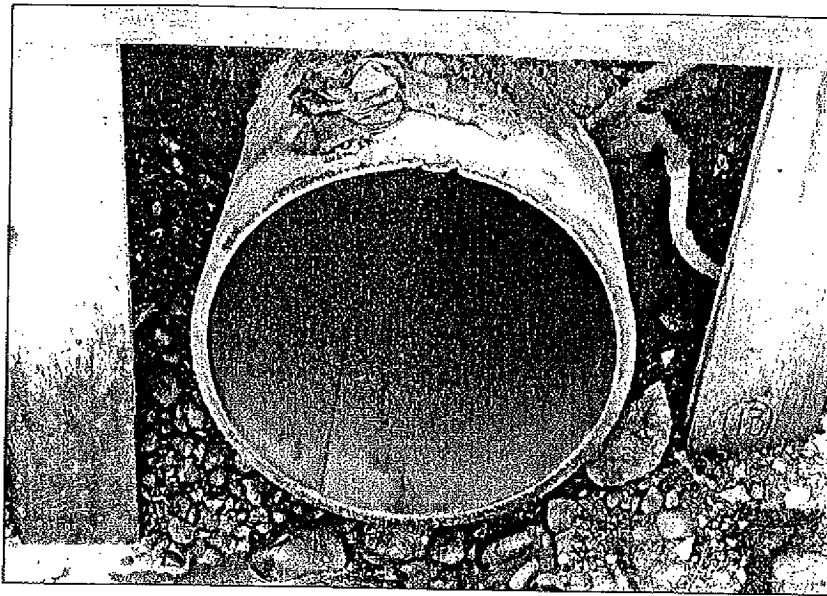


Figure 3-4 A pipe ready to be returned to service four to seven days after cement-mortar lining

returned to service. (Discharge water should be disposed of in accordance with local ordinances. Chlorine may need to be neutralized and the pH adjusted before discharge. Mains with low flow may experience high pH problems for a short time after being returned to service.) Most distribution mains are returned to service between four and seven days after lining (Figure 3-4), depending on valve locations and disinfection requirements.

9. AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place—4 in. (100 mm) and Larger, covers cement-mortar lining of pipelines from 4 in. (100 mm) to 144 in. (3,658 mm) in diameter.



American Water Works Association

**ANSI/AWWA C602-00**

(Revision of ANSI/AWWA C602-95)



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**AWWA STANDARD**  
FOR  
**CEMENT-MORTAR LINING**  
**OF WATER PIPELINES IN PLACE—**  
**4 IN. (100 mm) AND LARGER**



**Return to  
List of Standards**

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**AMERICAN WATER WORKS ASSOCIATION**

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# Foreword

*This foreword is for information only and is not part of AWWA C602.*

## **I. Introduction.**

I.A. *Background.* Cement-mortar lining provides the interior of a ferrous-metal pipe with a smooth finish that protects it from corrosion and tuberculation. The lining can significantly retard the recurrence of these problems in previously used pipe if the pipe has been properly cleaned and repaired before application of the lining. Furthermore, the lining can increase the pipeline's carrying capacity because of the reduction in friction resulting from streamlining surface irregularities.

The use of cement mortar as a protective lining for water mains was reported by the French Academy of Science in 1836. Fourteen years later, cement-lined, coated, sheet-metal pipe was introduced in the United States. Some of the early pipelines were in use for the better part of a century, but it was not until the 1930s that a practical method was developed for lining pipe in place.

The first field trial of in-place cement-mortar lining (of pipe that had been in service) was conducted in Jersey City, N.J., in 1933. The pipe was a short section 72 in. (1,830 mm) in diameter. The favorable outcome of the trial led to the cleaning and lining of more than 27,000 ft (8,230 m) of aged, 48-in. (1,220-mm) riveted-steel pipe supplying Newark, N.J. The lining stopped all leakage and, as a result of streamlining the surface over large rivets, also increased the Hazen-Williams flow coefficient by 14 points (estimated by the engineer).

For many years, the smallest-diameter pipe that could be reconditioned by the centrifugal process was 24 in. (600 mm), because a man was required to ride the lining machine through the pipe. In 1950, a remote-control centrifugal-lining machine was introduced that made in-place lining of progressively smaller-diameter pipe possible. Presently, pipelines ranging from 4 in. (100 mm) to 28 ft (9.2 m) in diameter can be cleaned and cement-mortar lined in place.

I.B. *History.* The first American Water Works Association (AWWA) standard for cement-mortar lining of pipe in place was published in 1939 as part of AWWA C205-41 (formerly 7A-7-41), Standard for Cement-Mortar Protective Lining and Coating for Steel Water Pipe. That standard was primarily concerned with in-plant lining and coating, a completely different process from in-place lining. Therefore, in 1951, the in-place lining portion was withdrawn and expanded into a separate

standard under the direction of the late H.A. Price, who authored most of the new document. That standard, AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place—Sizes 16 In. and Larger, was approved as tentative in 1954 and made standard in 1955.

In 1962, Price suggested to the AWWA Steel Water Pipe Manufacturers Technical Advisory Committee (SWPMTAC) that AWWA C602-55 should be revised in view of the extended competence of the centrifugal-lining process, which at that time included pipe as small as 4 in. (100 mm) in diameter. The assignment was given to SWPMTAC Subcommittee 8 and resulted in the revision of the standard adopted and published in 1967.

In 1972, the standard was again considered for revision to reflect the state of the art of in-place cement-mortar lining. The more frequent use of in-place cement-mortar lining in new, large-diameter steel pipelines prompted the committee to note some of the standard procedures used in this application. This edition was approved on Jan. 25, 1976. The standard was revised in 1983, 1988, and 1995. This edition was approved on June 11, 2000.

*I.C. Acceptance.* In May 1985, the US Environmental Protection Agency (USEPA) entered into a cooperative agreement with a consortium led by NSF International (NSF) to develop voluntary third-party consensus standards and a certification program for all direct and indirect drinking water additives. Other members of the original consortium included the American Water Works Association Research Foundation (AWWARF) and the Conference of State Health and Environmental Managers (COSHEM). The American Water Works Association (AWWA) and the Association of State Drinking Water Administrators (ASDWA) joined later.

In the United States, authority to regulate products for use in, or in contact with, drinking water rests with individual states.\* Local agencies may choose to impose requirements more stringent than those required by the state. To evaluate the health effects of products and drinking water additives from such products, state and local agencies may use various references, including:

1. An advisory program formerly administered by USEPA, Office of Drinking Water, discontinued on Apr. 7, 1990.
2. Specific policies of the state or local agency.

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\*Persons in Canada, Mexico, and non-North American countries should contact the appropriate authority having jurisdiction.

3. Two standards developed under the direction of NSF: ANSI<sup>\*</sup>/NSF<sup>†</sup> 60, Drinking Water Treatment Chemicals—Health Effects, and ANSI/NSF 61, Drinking Water System Components—Health Effects.

4. Other references, including AWWA standards, *Food Chemicals Codex*, *Water Chemicals Codex*,<sup>‡</sup> and other standards considered appropriate by the state or local agency.

Various certification organizations may be involved in certifying products in accordance with ANSI/NSF 61. Individual states or local agencies have authority to accept or accredit certification organizations within their jurisdiction. Accreditation of certification organizations may vary from jurisdiction to jurisdiction.

Annex A, "Toxicology Review and Evaluation Procedures," to ANSI/NSF 61 does not stipulate a maximum allowable level (MAL) of a contaminant for substances not regulated by a USEPA final maximum contaminant level (MCL). The MALs of an unspecified list of "unregulated contaminants" are based on toxicity testing guidelines (noncarcinogens) and risk characterization methodology (carcinogens). Use of Annex A procedures may not always be identical, depending on the certifier.

AWWA C602-00 does not address additives requirements. Thus, users of this standard should consult the appropriate state or local agency having jurisdiction in order to:

1. Determine additives requirements, including applicable standards.
2. Determine the status of certifications by all parties offering to certify products for contact with, or treatment of, drinking water.
3. Determine current information on product certification.

**II. Special Issues.** This standard has no applicable information for this section.

**III. Use of This Standard.** AWWA has no responsibility for the suitability or compatibility of the provisions of this standard to any intended application by any user. Accordingly, each user of this standard is responsible for determining that the standard's provisions are suitable for and compatible with that user's application.

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<sup>\*</sup>American National Standards Institute, 11 W. 42nd St., New York, NY 10036.

<sup>†</sup>NSF International, 789 N. Dixboro Rd., Ann Arbor, MI 48105.

<sup>‡</sup>Both publications available from National Academy of Sciences, 2102 Constitution Ave. N.W., Washington, DC 20418.

III.A. *Purchaser Options and Alternatives.* The following information should be included in the purchaser's specifications:

1. Project. Diameter, length, and location of pipeline, including plan and profile drawings when available; limits of pipeline shutdowns, if service requirements make these limits necessary; location of access manholes; location, type, and size of valves; location of interconnecting pipelines, hydrant branches, and service pipes; location of fittings and restrictions that could interfere with cleaning and lining operations; location, diameter, and connections of temporary bypass, if required; and all other details of the pipe within the scope of the contract between the purchaser and the constructor.

2. Thickness of cement-mortar lining. Nominal thickness of cement-mortar lining required (Sec. 4.4.5).

3. Services provided by purchaser. Description of all services or field operations to be performed by the purchaser, such as locating the main to be cleaned and lined; removal and replacement of line valves; operation of valves; tagging all valves that separate the main to be cleaned and lined from the water system to prevent accidental opening; shutting off all inflow of water from connecting pipelines; locating and operating blowoffs; connecting and disconnecting temporary bypasses to customer services; obtaining all permits required for the work; handling all customer contacts; disinfection; and conducting flow tests.

4. Additional work to be performed by constructor. Description of work, including repairs to deteriorated pipe; extra thickness of lining over the rivet heads and lockbar seams; excavation, backfill, and resurfacing work at access excavations; method of opening and closing access openings in the pipeline; supplying, laying, and removing temporary bypass pipe; and operation of main-line or blowoff valves.

NOTE: When it is necessary to repair deteriorated pipe before lining, the pipe will be repaired by the purchaser or under provisions of the contract between the purchaser and the constructor.

5. Water for cleaning and lining operations. Location of water sources, method of supplying, quantity available, and pressure information.

6. Disposal of cleaning water and debris. Requirements for the disposal of cleaning water, old lining, and other debris; instructions regarding permits from the responsible authorities.

7. Permissible cement-mortar materials. Preference for, or any restrictions on, type of portland cement or admixtures to be used in lining mortar.

8. Purchaser options. Options that may be included in the purchaser's specifications after reviewing the following items in the sections noted:

- a. Affidavit of compliance (Sec. 6.3).
- b. Portland cement (Sec. 4.3.1).
- c. Use of admixtures (Sec. 4.3.2, 4.4.1, and 4.4.2).
- d. Mortar lining thickness (Sec. 4.4.5).
- e. Access openings (Sec. 4.5.1).
- f. Traffic control (Sec. 4.5.1).
- g. Surface finish (Sec. 4.5.4).
- h. Cleaning of valves; new bolts and gaskets (Sec. 4.5.6.1 and 4.5.6.2).
- i. Curing by purchaser (Sec. 4.5.7.3).
- j. Temporary bypass to customers (Sec. 4.6).
- k. Disinfection of temporary bypass (Sec. 4.6.2).
- l. Leaking valves (Sec. 4.7.2).
- m. Access openings for lining for new pipe (Sec. 4.8.1).
- n. Surface finish for new pipe (Sec. 4.8.4).

III.B. *Modification to Standard.* Any modification to the provisions, definitions, or terminology in this standard must be provided in the purchaser's specifications.

**IV. Major Revisions.** The major changes made to the standard in this edition include the following:

1. The title of the standard was revised.
2. Definitions (Sec. 3) have been revised.
3. References to pozzolanic materials have been removed from Sec. 4.4.
4. Table 1 on recommended thicknesses of cement–mortar linings has been revised.
5. Sec. 5.1 has been revised for sampling and testing frequency and strength of lining.

**V. Comments.** If you have any comments or questions about this standard, please call the AWWA Volunteer and Technical Support Group, (303) 794-7711 ext. 6283, FAX (303) 795-7603, or write to the group at 6666 W. Quincy Ave., Denver, CO 80235.

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# **AWWA STANDARD FOR CEMENT-MORTAR LINING OF WATER PIPELINES IN PLACE— 4 IN. (100 mm) AND LARGER**

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## **SECTION 1: GENERAL**

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### **Sec. 1.1 Scope**

This standard describes the requirements for the materials and application of a cement-mortar lining to the inside surface of 4-in. (100-mm) and larger new and old steel, ductile-iron, and cast-iron water pipelines that have been previously installed, as well as related work. The application requirements are (1) that the lining of all straight pipe sections and long radius bends shall be performed by a machine that progresses uniformly through the pipe, applies cement mortar against the pipe surfaces, and is provided with an attachment for mechanically troweling the mortar to obtain a smooth lining of uniform thickness with smooth transitions over joints; and (2) that the lining of bends, specials, and areas adjacent to valves shall be machine sprayed and hand troweled or, where machine placement is impractical, shall be performed manually.

### **Sec. 1.2 Purpose**

The purpose of this standard is to define the minimum requirements for cement-mortar lining of water pipelines, 4 in. (100 mm) and larger, in place, including materials, design, and methods for construction.

### Sec. 1.3 Application

This standard can be referenced in specifications for cement-mortar lining of water pipelines in place, 4 in. (100 mm) and larger.

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## SECTION 2: REFERENCES

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This standard references the following documents. In their latest editions, these documents form a part of this standard to the extent specified within this standard. In any case of conflict, the requirements of this standard shall prevail.

ASTM\* C40—Standard Test Method for Organic Impurities in Fine Aggregates for Concrete.

ANSI†/ASTM C143—Standard Test Method for Slump of Hydraulic Cement Concrete.

ANSI/AWWA C500—Standard for Metal-Seated Gate Valves for Water Supply Service.

ANSI/AWWA C504—Standard for Rubber-Seated Butterfly Valves.

ANSI/AWWA C509—Standard for Resilient-Seated Gate Valves for Water Supply Service.

ASTM C150—Standard Specification for Portland Cement.

ASTM C494—Standard Specification for Chemical Admixtures for Concrete.

ASTM E11—Standard Specification for Wire Cloth and Sieves for Testing Purposes.

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## SECTION 3: DEFINITIONS

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The following definitions shall apply in this standard:

1. *Constructor*: The party that provides the work and materials for placement or installation.
2. *Purchaser*: The person, company, or organization that purchases any materials or work to be performed.

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\*American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

†American National Standards Institute, 11 W. 42nd St., New York, NY 10036.



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## SECTION 4: REQUIREMENTS

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### Sec. 4.1 Workmanship

All work shall be performed by trained personnel under the supervision of experienced persons skilled in the application of cement-mortar lining to pipelines in place.

### Sec. 4.2 Equipment

The constructor's equipment for cleaning, applying, and troweling cement-mortar in the pipe and for curing the cement-mortar lining shall be so designed and manufactured and in a condition to permit the workers to follow the procedure and obtain the results prescribed in this standard.

### Sec. 4.3 Materials for Construction

4.3.1 *Portland cement.* Portland cement shall conform to the requirements of ASTM C150 for type I or type II cement, or as otherwise specified by the purchaser.

4.3.2 *Admixtures.* To improve workability, density, and strength in the mortar, admixtures conforming to ASTM C494 may be used at the option of the constructor, unless otherwise required by the purchaser's specifications, provided that the ratio of admixture to portland cement does not exceed that used in the qualification tests of ASTM C494. No admixtures shall be used that would have a deleterious effect on potable water flowing in the pipe after the lining has been placed.

4.3.3 *Sand.* Sand shall consist of inert granular material. The grains shall be strong, durable, and uncoated. The sand shall be well graded and shall pass a No. 16 mesh screen, with not more than 5 percent passing a US Standard Sieve No. 100. (For screen and sieve sizes, refer to ASTM E11.)

4.3.3.1 *Deleterious substances in sand.* Sand shall be clean. The total combined weight of dust, clay, loam, lumps, shale, soft or flaky particles, mica, oil, alkali, and other deleterious substances shall not exceed 3 percent of the total combined weight of the deleterious substances and the sand containing them. In addition, the following limitations shall apply to specific substances:

Substance	Maximum Allowable Percentage by Weight
Shale	1
Clay lumps	1
Mica and deleterious substances other than shale and clay lumps	2

4.3.3.2 *Organic impurities.* Sand shall not show a color value darker than the "reference standard color solution" prepared as required in ASTM C40.

4.3.4 *Water.* Water for mixing mortar shall be clean and free of mud, oil, and injurious amounts of organic material or other deleterious substances. Potable water shall be used.

## **Sec. 4.4 General Cement-Mortar Lining Design**

4.4.1 *Composition.* Mortar for the lining shall be composed of cement, sand, and water that have been well mixed and are of such consistency as to produce a dense, homogeneous lining. Unless otherwise specified by the purchaser, the mortar may also include admixtures.

4.4.2 *Proportions.* The approximate proportions of cement and sand in the mortar for the lining shall be 1 part of portland cement to 1-1½ parts of sand by volume. The exact proportions shall be determined by the characteristics of the sand used. Admixtures (Sec. 4.3.2), if added, shall be used in strict compliance with the manufacturer's printed recommendations.

4.4.3 *Water content.* The water content shall be the minimum quantity that produces a workable mixture, allowing for moisture collecting on the interior of the pipe surfaces. Slump tests should be made periodically on freshly mixed mortar immediately before the mortar is conveyed to the lining machine. The tests shall be made in accordance with ANSI/ASTM C143. Nominal slumps of cement-mortar mixes for application of linings are indicated in Figures 1 and 2.

4.4.4 *Mixing.* Mortar shall be mixed long enough to obtain maximum plasticity. The mortar shall be used before initial set.

### **4.4.5 Thickness of lining.**

4.4.5.1 *General requirement.* The lining shall be uniform in thickness within the allowable tolerance, except at joints or deformations in the pipeline. Cement-mortar lining thickness shall be in accordance with Table 1, unless otherwise specified by the purchaser. If a cement-mortar lining thickness greater than ½ in. (13 mm) is required by the purchaser, the constructor shall have the option to apply the mortar lining in multiple applications. The thickness measuring device shall be agreed on by the constructor and purchaser.

4.4.5.2 *Thickness over rivets and lockbar.* The thickness of cement-mortar lining over the top of rivet heads and lockbar longitudinal seams of steel pipe shall not be less than ⅛ in. (3.2 mm), unless otherwise specified by the purchaser.

## Sec. 4.5 Methods for Construction of Rehabilitated Pipelines

4.5.1 *Access openings—general requirements.* All access openings necessary for the lining work shall be prepared and closed by the constructor, unless otherwise specified in the purchaser's specifications. Traffic control shall be as defined in the purchaser's specifications.

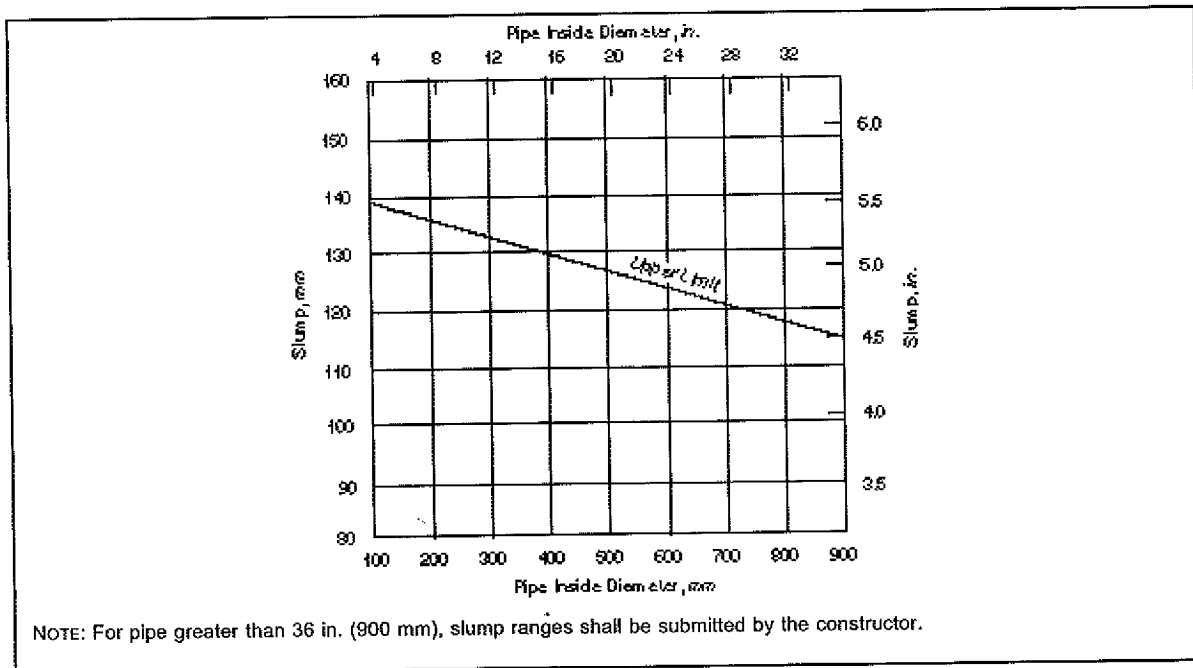


Figure 1 Nominal slumps of cement-mortar mixes for application of pipe linings using pump feed

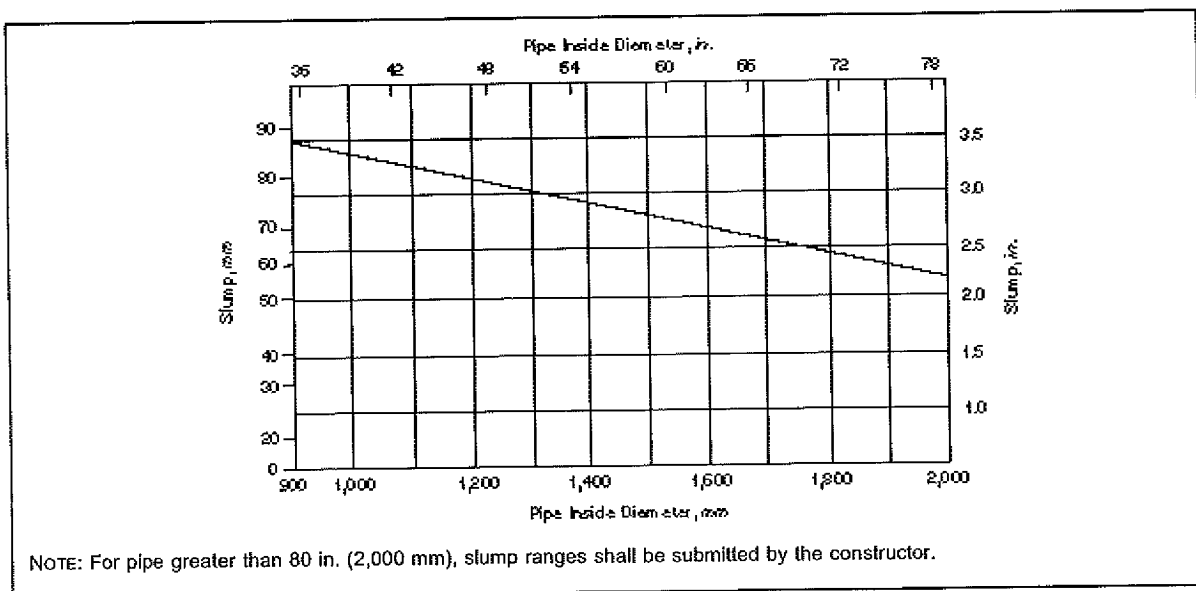


Figure 2 Slump limits of cement-mortar for application of pipe linings using mechanical feed

Table 1 Recommended thickness of cement-mortar lining for pipelines in place

Table 1 Recommended thickness of cement mortar lining for pipe									
Pipe Diameter		Type of Pipe							
		Old Steel		Old and New Gray Cast Iron and Ductile Iron		New Steel		Tolerance	
		<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>
4-10	100-250	$\frac{5}{16}$	8	$\frac{3}{16}$	4.8	$\frac{1}{4}$	6.3	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
11-23	280-580	$\frac{3}{8}$	10	$\frac{1}{4}$	6.4	$\frac{5}{16}$	8	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
24-36	600-900	$\frac{7}{16}$	11.1	$\frac{5}{16}$	8	$\frac{3}{8}$	10	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
≥36	≥900	$\frac{9}{16}$	14.3	$\frac{5}{16}$	8	$\frac{1}{2}$	13	$-\frac{1}{16}, +\frac{3}{16}$	-1.6, + 4.8

NOTE: For badly deteriorated pipe or abnormal use, the purchaser should specify a greater thickness of lining as engineering judgment indicates.

#### 4.5.2 Preparation of pipe surface.

4.5.2.1 Cleaning interior. The interior surfaces of pipe to be lined shall be cleaned by methods approved by the purchaser to remove corrosion products; chemical or other deposits; loose and deteriorated remains of old lining materials; oil; grease; and accumulations of water, dirt, and debris. When the method of cleaning the pipe does not include the use of water, laterals less than 2 in. (50 mm) in diameter shall be cleared after cleaning by backflushing with air or water wherever necessary or as required by the purchaser.

4.5.2.2 Lockbar or riveted steel pipe. The area adjacent to the lockbar or rivets shall be inspected after initial cleaning and may require cleaning by hand before lining.

#### 4.5.3 Machine application of mortar lining.

4.5.3.1 Cleanup ahead of machine. Immediately before the lining machine travels through a pipeline, all foreign material shall be removed. This includes sand and loose mortar that might have accumulated since the preparation of surfaces was completed.

4.5.3.2 Lining procedure. The lining shall be applied in one or more courses by a machine traveling through the pipe and distributing the mortar uniformly across the full section and long radius bends of the pipe. The discharge shall be from the rear of the machine so that the newly applied mortar will not be marked. The rate of travel of the machine and the rate of mortar discharge shall be mechanically regulated to produce a smooth surface and uniform thickness throughout. The mortar shall be densely packed and adhere wherever applied; there shall be no injurious rebound.

4.5.3.3 Procedure at rivets and open joints. In steel pipe 24 in. (600 mm) and larger in diameter, mortar may be applied manually ahead of the lining machine for uniform thickness over the line of rivet heads and where steel plates overlap. Open joints shall be packed with mortar before lining where necessary to provide a smooth surface across the joint. The mortared areas shall be moist and free of surface checking before proceeding with the machine lining.

4.5.4 *Surface finish.* The mortar lining in all pipe of the diameters described in this standard shall be mechanically troweled except for the places where hand troweling or the placement of an untroweled lining is expressly allowed by this standard (Sec. 4.5.4.2).

4.5.4.1 Troweled linings. The lining machine shall be provided with attachments for mechanically troweling the mortar. Both the application and troweling of the mortar shall take place at the rear of the machine so that the freshly placed and troweled mortar will not be damaged. The trowel attachment shall be such that the pressure applied to the lining will be uniform and produce a lining of uniform thickness with a smooth, finished surface, free of spiral shoulders. The finished surface of machine-placed troweled linings in pipe 24 in. (600 mm) and larger in diameter shall be examined as described in Sec. 4.5.4.1.1 and shall meet the performance criteria in Sec. 5.2.7.

4.5.4.1.1 Procedures. In the reach of pipe 24 in. (600 mm) and larger in diameter that has been lined and troweled in each day's run, 10 places shall be selected in straight sections of the pipe according to a predetermined sampling method agreed on by the purchaser and constructor. In each of the 10 places, a 12-in. (300-mm) straightedge shall be laid parallel to the axis of the pipe. In 9 of the 10 places, the space between the lined surface and the straightedge shall at no point be greater than  $\frac{1}{16}$  in. (1.6 mm) for smooth-bore pipe in good condition and  $\frac{1}{8}$  in. (3.2 mm) for pipe with a rough or irregular interior. This test shall not apply in places where the unlined pipe is too rough or irregular for the required tolerances to be met by machine lining.

4.5.4.2 Untroweled linings. The finished surface shall be smooth and regular, except that it may exhibit a slightly dimpled appearance similar to the surface of an orange. Ridges or uneven buildup caused by irregularity in the travel rate of the machine shall not be allowed.

4.5.4.2.1 Allowable untroweled lining. Untroweled cement-mortar lining is acceptable in the lining of dead-end sections, in the lining of pipe that is excessively

out of round, and in pipe 20 in. (500 mm) in diameter and smaller, when lining pipeline segments containing cocked joints, sharp bends, and angle points.

4.5.5 *Hand application of mortar lining.* Hand-placed mortar shall have a uniform surface with smooth transitions to adjacent machine-placed linings.

4.5.5.1 Allowable hand placement. In pipe 24 in. (600 mm) and larger in diameter, in places where machine placing of cement-mortar lining is impractical (such as sharp bends, specials, or areas closely adjacent to valves), lining shall be performed by hand. The purchaser may permit the correction of any defect by hand application.

4.5.5.2 Materials. Cement mortar for handwork shall be of the same materials as the mortar for machine-placed lining.

4.5.5.3 Cleaning. Areas to be lined shall be cleaned as specified in Sec. 4.5.2 and, if necessary, shall be moistened with water immediately before placing the hand-applied mortar.

4.5.5.4 Troweling. Steel finishing trowels shall be used for the hand application of cement mortar, except at bends. The outer edges of hand-troweled areas may be brushed to reduce the abutting offset.

4.5.5.5 Timing. All hand-finishing work in a section of pipeline shall be completed within 24 hr after completion of the machine application of mortar lining to that section. If necessary, application of mortar lining by machine shall be delayed or stopped to ensure compliance with this schedule.

4.5.6 *Special requirements at laterals and service connections.* Laterals and connections to the pipe that are being lined shall not be left obstructed by the lining operations.

4.5.6.1 Pipe less than 24 in. (600 mm) in diameter. After the mortar lining has been placed, but before it takes final set, laterals and services 2 in. (50 mm) and smaller in diameter shall be cleared by backflushing with air or water wherever necessary or as required by the purchaser. The backflushing shall be performed in a manner that will not damage the freshly applied lining. Unless a lateral is to be cleaned and lined, it shall not be excavated. The constructor shall clean all interior surfaces of main-line valves after the lining machine has passed. The constructor may, with the purchaser's approval, remove the bonnets and gates from main-line gate valves to accomplish the cleaning; the bonnets and gates shall then be replaced. The constructor shall, with the purchaser's approval, remove all butterfly valves from the main line when necessary and then reinstall them after the lining operation. New

bolts and gaskets for bonnet or valve replacements meeting the requirements of the applicable AWWA valve standard (ANSI/AWWA C500, ANSI/AWWA C504, or ANSI/AWWA C509) shall be supplied by the constructor, unless otherwise provided by the purchaser's specifications.

4.5.6.2 Pipe 24 in. (600 mm) and larger in diameter. Before the lining is placed, the openings in the pipeline that lead to air valves, blowoffs, manholes, and appurtenances, as well as to laterals and connections from the pipeline, shall be temporarily covered or plugged with suitable devices. These shall be removed later without damaging the cement mortar. When working inside the pipe is impractical, the constructor may clear connecting pipelines by flushing and, with the purchaser's approval, clean gate valves by removing bonnets and gates. The constructor shall, with the purchaser's approval, remove all butterfly valves from the main line when necessary. New bolts and gaskets for bonnet or valve replacement that meet the requirements of the applicable AWWA valve standard shall be supplied by the constructor, unless otherwise provided by the purchaser's specifications.

#### 4.5.7 *Curing.*

4.5.7.1 General requirements. Curing operations shall begin immediately following completion of the machine placement of the mortar lining in a section of pipeline. The section of pipe shall be closed with airtight covers over all openings and shall be maintained in a moist condition.

4.5.7.2 Curing by constructor. When a section of pipeline has been completed, the constructor shall be responsible for curing the mortar lining until the section is filled with water by the purchaser, or until the lining has been accepted by the purchaser, but in no case for more than seven days. In the event that the purchaser cannot fill the pipeline within seven days after the lining has been placed, or within the time specified by the purchaser, the constructor may be directed to extend the curing period.

4.5.7.3 Curing by purchaser. Sections of the mortar-lined pipe shall be filled with water as soon as possible after lining operations in such a manner as not to damage the lining. There shall be no pressure on any section until the mortar lining has been in place for at least 24 hr, except for pressure induced by variations in the grade of the pipeline. The filling shall be performed by the purchaser unless the purchaser's specifications stipulate otherwise.

4.5.7.4 Sprinkling exterior. The exterior surfaces of pipe exposed to sunlight shall be sprinkled with water in the daytime during the period of lining, finishing,

and curing when sprinkling is required, as determined by the constructor or the purchaser, to prevent cracking of the lining.

## **Sec. 4.6 Temporary Bypass to Customers**

**4.6.1 General description.** Temporary bypass facilities may be required to maintain service to customers connected to pipelines being cleaned and cement-mortar lined. It shall be the purchaser's responsibility to design the bypass system, including a layout of the bypass piping, customers to be serviced, the specified bypass pipe diameter to be used in specific locations, as well as the type and locations of temporary fire hydrants. When required by the purchaser, the constructor shall provide, install, maintain, and remove temporary bypass pipelines in accordance with the purchaser's specifications.

**4.6.2 Pipe and materials.** The pipe, hose, and other materials shall be supplied by the constructor for use in conjunction with temporary bypass pipe and connections to services and laterals. These materials shall withstand the pressures indicated and all other conditions of use. The pipe and fittings shall be watertight and shall be disinfected before being put into service. Disinfection shall be performed by the constructor unless the purchaser's specifications stipulate otherwise.

**4.6.3 Procedure.** Temporary bypass facilities shall include hoses and necessary outlets and fittings to each service connection. The constructor shall provide, install, and maintain the temporary bypass lines in a safe and operative condition at all times. After service has been restored to a section of water main, the constructor shall remove the temporary bypass and related facilities and shall leave the work site in a neat and orderly condition.

**4.6.4 Supply of water to feed temporary bypass.** The purchaser shall be responsible for the availability of water at sufficient pressure and in sufficient volume to supply the bypass system. The purchaser shall provide taps or other suitable feed points to which the bypass may be connected. If there are no hydrants or aboveground taps at convenient locations for bypass connection, the purchaser shall either install outlets on the system as required or direct the constructor to install the connections.

**4.6.5 Temporary connection to customers.** Before starting any work that will affect service to customers, the constructor shall notify the purchaser in advance to allow the purchaser to notify all customers accordingly. All shutoffs to customer service lines and all connections from the bypass line to the customer service lines shall be made by the constructor. If required by the purchaser, bypass service



connections requiring excavation, cutting, or tapping shall be made by the constructor unless specifically included in the purchaser's specifications. After the pipeline has been cleaned and lined, the constructor shall clear the service lines by backflushing with air or water. Where it is impossible to clear the service line because the customer's premises cannot be entered, the constructor shall excavate and clear the service at the main. The restoration of service to the customer, including disconnection from the bypass system and reconnection to the pipeline, is the constructor's responsibility unless otherwise required by the purchaser's specifications.

## **Sec. 4.7 Contingent Work**

**4.7.1 Obstructions.** Obstructions in the pipeline that prohibit the passage of cleaning or lining equipment shall be removed by the constructor. These include, but are not limited to

1. Bends, reducers, valves, or other fittings not indicated on drawings provided by the purchaser.
2. Overpoured lead joints.
3. Deformations in the pipe wall, out-of-round pipe, or defective pipe.
4. Protruding lateral or service connections.
5. Internal tie rods.
6. Successive cocked joints.

**4.7.2 Leaking valves.** The purchaser shall be responsible for preventing water from existing connections from entering the pipe before lining has been completed. The purchaser shall be responsible for the repair or replacement of leaking sideline valves as soon as discovered. The purchaser's specifications may require the constructor to do the actual work of repair or replacement, but even if not so required, the constructor shall be permitted, if the purchaser fails to act immediately, to excavate on one side or the other of the leaking valve, cut the pipe, and stop the leakage.

## **Sec. 4.8 Methods for Lining of New Steel Pipe**

**4.8.1 Access openings for lining.** The constructor may use existing manholes, flanged outlets, and pass holes for access and material feed points during the lining operations. Access openings shall be removed or replaced in accordance with purchaser's specifications. Cement-mortar lining of closures and adjacent areas shall be applied by machine or hand methods. Access to the pipeline for placing

field-applied cement-mortar lining may be obtained by one or more of the following methods:

1. Temporarily omitting short "roll-out" sections of pipe.
2. Deferring the installation of closing sections of pipe until after completion of the lining.
3. Cutting "half-cap" openings in the installed pipeline.
4. Cutting temporary feed-point manholes in the installed pipeline.

**4.8.2 Preparation of pipe surfaces.** The interior surface of the pipeline shall be cleaned before placement of cement-mortar lining. The pipe interior surface shall be free of oil, grease, and accumulations of water. Loose mill scale, dirt, rust, and construction debris shall be removed from the interior surface of the new pipeline. This may be performed by using a stiff street broom in large pipe or a drag brush in small pipe. Shot or sandblasting shall not be required.

**4.8.3 Machine application of cement-mortar lining.**

**4.8.3.1 Cleanup ahead of machine.** Immediately before the travel of the lining machine through a pipeline, all foreign material, such as sand, loose mortar, dirt, and debris shall be removed.

**4.8.3.2 Lining procedure.** The lining shall be applied in one or more courses by a machine traveling through the pipe and distributing the mortar uniformly across the full section and long radius bends of the pipe. The discharge shall be from the rear of the machine so that the newly applied mortar will not be marked. The rate of travel of the machine and the rate of mortar discharge shall be mechanically regulated to produce a smooth surface and uniform thickness throughout. The mortar shall be densely packed and adhere wherever applied; there shall be no injurious rebound.

**4.8.3.3 Procedure at joints.** Joints shall be packed with mortar before lining where necessary to provide a smooth surface across the joint. These mortared areas shall be moist and free of surface checking before proceeding with the machine lining over the joint area.

**4.8.4 Surface finish.** The mortar lining in all pipe of the diameters described in this standard shall be mechanically troweled except for the places where hand troweling or the placement of an untroweled lining is expressly allowed by this standard. (Sec. 4.8.4.2.1).

**4.8.4.1 Troweled linings.** The lining machine shall be provided with attachments for mechanically troweling the mortar. Both the application and troweling of

the mortar shall take place at the rear of the machine so that the freshly placed and troweled mortar will not be damaged. The trowel attachment shall be such that the pressure applied to the lining will be uniform and produce a lining of uniform thickness with a smooth, finished surface, free of spiral shoulders. The finished surface of machine-placed troweled lining in pipe 24 in. (600 mm) and larger in diameter shall be examined as described in Sec. 4.5.4.1.1 and shall meet the performance criteria in Sec. 5.2.7.

4.8.4.2 Untroweled linings. The finished surface shall be smooth and regular except that it may exhibit a slightly dimpled appearance similar to the surface of an orange. Ridges or uneven buildup caused by irregularity in the travel rate of the machine shall not be allowed.

4.8.4.2.1 Untroweled lining may be allowed in sections of a pipeline where the pipe to be lined is excessively out of round.

4.8.5 *Hand application of cement-mortar lining.* Hand-placed mortar shall have a uniform surface with smooth transitions to adjacent machine-placed lining.

4.8.5.1 Allowable hand placement. In pipe 24 in. (600 mm) and larger in diameter, in places where machine placing of cement-mortar lining is impractical, (such as sharp bends, specials, or areas closely adjacent to valves), lining shall be performed by hand.

4.8.5.2 Materials. Cement mortar for handwork shall be of the same materials as the mortar for machine-placed lining.

4.8.5.3 Cleaning. Areas to be lined shall be cleaned as specified in Sec. 4.8.2 and, if necessary, shall be moistened with water immediately before placing the hand-applied mortar.

4.8.5.4 Troweling. Steel finishing trowels shall be used for the hand application of cement mortar, except at bends. The outer edges of hand-troweled areas may be brushed to reduce the abutting offset.

4.8.5.5 Timing. All hand-finishing work in a section of pipeline shall be completed within 24 hr after completion of the machine application of mortar lining to that section. If necessary, application of mortar lining by machine shall be delayed or stopped to ensure compliance with this schedule.

4.8.6 *Special requirements at openings.* Laterals and connections to the pipe being lined shall not be left obstructed by the lining operations. Openings in the pipeline for manholes, outlets, and blowoffs shall be temporarily closed and covered with removable coverings or other suitable devices to prevent the intrusion of the

cement mortar into the openings. On completion of the lining, the constructor shall remove all of these covers and shall repair any lining damaged in the process.

#### 4.8.7 *Curing.*

4.8.7.1 General requirements. Curing operations shall begin immediately following completion of the machine placement of the cement-mortar lining in a section of pipeline. The section of pipe shall be closed with airtight covers over all openings, and the lining shall be maintained in a moist condition. The pipeline shall remain closed and the moist atmosphere maintained until the pipeline is filled.

4.8.7.2 Curing by constructor. When a section of pipeline has been completed, the constructor shall be responsible for careful curing of the cement-mortar lining until the section is filled with water by the purchaser, or until the lining has been accepted by the purchaser, but in no case for more than seven days. In the event that the purchaser cannot fill the pipeline within seven days after the lining has been placed, or within the time specified by the purchaser, the purchaser may direct the constructor to extend the curing period.

4.8.7.3 Curing by purchaser. Sections of the mortar-lined pipe shall be filled with water as soon as possible after lining operations in such a manner as not to damage the lining. There shall be no pressure on any section until the mortar lining has been in place for at least 24 hr, except for pressure induced by variations in the grade of the pipeline. The filling should be performed by the purchaser, unless the purchaser's specifications stipulate otherwise.

4.8.7.4 Sprinkling exterior. The exterior surfaces of pipe exposed to sunlight shall be sprinkled with water and kept moist in the daytime during the period of lining, finishing, and curing when sprinkling is required, as determined by the constructor or the purchaser, to prevent cracking of the lining.

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## SECTION 5: VERIFICATION

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### Sec. 5.1 Inspection

All materials provided and work performed will be subject to inspection. The constructor shall provide, without additional cost to the purchaser, samples and reasonable assistance for the inspection of materials and workmanship.

5.1.1 *Sampling and testing frequency.* A set of at least two standard test cylinders shall be made each day from the cement-mortar lining for each shift to

satisfy the quality control requirements of Sec. 5.1.2. Additional cement–mortar testing shall be defined in the purchaser’s specifications.

5.1.2 *Strength of cement–mortar lining.* Cement–mortar test cylinders shall attain a minimum compressive strength of 4,500 psi (31 MPa) in 28 days. Pipe with cement–mortar lining that does not meet the strength requirements described in this standard shall be subject to rejection.

## **Sec. 5.2 Inspection of Rehabilitated Pipelines**

5.2.1 *Responsibility of purchaser and constructor.* The entire procedure for applying cement–mortar lining may be subject to continuous inspection by the purchaser, but the inspection shall not relieve the constructor of the responsibility to provide material and perform work in accordance with this standard.

5.2.2 *All phases accessible to purchaser.* The purchaser shall have free access to all areas, places, or facilities concerned with the providing of material or the performance of work according to the provisions of this standard.

5.2.3 *Constructor to assist purchaser.* The constructor shall provide the purchaser reasonable assistance, without additional charge, in performing inspection duties and, specifically, in obtaining information concerning the material used and the progress of the work.

5.2.4 *Pipe inspection procedures.* The purchaser may inspect the pipeline following the application of the cement–mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with this standard.

5.2.4.1 *Small-pipe inspection procedure.* The inspection of the lining in pipe that is too small for a person to enter, less than 24-in. (600-mm) inside diameter (ID), may be made by television or from both ends of the lined pipe segment by using strong lights or mirrors. The purchaser may determine the quality of the lining from this visual inspection. Where practical, on pipelines that are less than 24-in. (600-mm) ID, the lining may be inspected by the purchaser before the lining has attained its initial set. (It is not practical to remove defective cement–mortar lining that has reached its initial set.)

5.2.4.2 *Large-pipe inspection procedure.* In pipe 24-in. (600-mm) ID and larger, a manual, visual inspection of the lined pipe interior may be made by the purchaser to determine the quality of the lining and to identify defective areas in the lining for repair. Physical inspection shall adhere to appropriate safety precautions for confined spaces.

5.2.5 *Defective lining.* Defects in cement–mortar lining include, but are not limited to, sand pockets, voids, oversanded areas, excessively cracked and drummy areas, areas of lining thinner than specified, and areas of unsatisfactory surface finish.

5.2.6 *Repair of defective lining.*

5.2.6.1 Pipe less than 24-in. (600-mm) ID. In pipe less than 24-in. (600-mm) ID, the defective lining shall be removed in total from the pipe segment before the lining has reached its initial set. The pipe segment shall then be relined in full compliance with project specifications. Defective lining rejected after initial set shall be repaired by the most practical method as determined by the purchaser, in consultation with the constructor.

5.2.6.2 Pipe 24-in. (600-mm) ID and larger. In pipe 24-in. (600-mm) ID and larger, defects in lining shall be repaired. Small defective areas shall be repaired by manual removal of the defective lining and reapplication of cement–mortar lining. Defective areas encompassing the full diameter of the pipe shall be replaced by machine wherever practical.

5.2.7 *Guarantee and performance criteria.*

5.2.7.1 Guarantee. If an examination by the purchaser of the cement–mortar lining work within a period of one year after final completion and acceptance of the work reveals evidence of defective materials or workmanship as defined in this standard, then the purchaser shall act according to the remedies in Sec. 5.2.6 of this standard. The constructor shall bear the expense and perform the repair of defective work in a manner acceptable to the purchaser.

5.2.7.2 Performance criterion—surface finish. The Hazen–Williams  $C$  factor ( $C_{hw}$ ) is a generally accepted criterion for determining the acceptability of surface finish of cement–mortar lining and restoration of carrying capacity in rehabilitated pipelines. Table 2 and Sec. 5.2.7.1 are given as a guarantee for acceptable performance in smooth-bore pipe.

### **Sec. 5.3 Inspection of New Steel Pipe**

5.3.1 *Responsibility of purchaser and constructor.* The entire procedure of applying cement–mortar lining may be subject to continuous inspection by the purchaser, but this inspection shall not relieve the constructor of responsibility to provide material and perform work in accordance with this standard.

Table 2 Acceptable performance for smooth-bore pipe

Pipe Inside Diameter		Guaranteed
<i>in.</i>	( <i>mm</i> )	$C_{hw}$ Factor*
4	(100)	90
6	(150)	100
8	(200)	110
10	(250)	115
12	(300)	120
14–20	(300–350)	125
>20	(>500)	130

\*Based on nominal inside of pipe diameter before cement–mortar lining. The purchaser may specify that flow tests be conducted by an independent testing firm, by the constructor, or by the purchaser. The purchaser may establish liquidated damages to be assessed against the constructor when the lined pipe does not achieve the guaranteed  $C_{hw}$  factor.

5.3.2 *All phases accessible to purchaser.* The purchaser shall have free access to all areas, places, or facilities concerned with the providing of material or the performance of work according to the provisions of this standard.

5.3.3 *Constructor to assist purchaser.* The constructor shall provide the purchaser reasonable assistance, in performing the inspection duties and specifically in obtaining information concerning the material used and the progress of the work.

5.3.4 *Pipe inspection procedures.* The purchaser may inspect the pipeline following the application of the cement–mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with this standard.

5.3.4.1 *Small-pipe inspection procedure.* The inspection of lining in pipe that is too small for a person to enter, less than 24-in. (600-mm) ID, may be made by television or from both ends of the lined pipe segment by using strong lights or mirrors. The purchaser may determine the quality of the lining from this visual inspection. Where practical, on pipelines that are less than 24-in. (600-mm) ID, the lining may be inspected by the purchaser before the lining has attained its initial set.

5.3.4.2 *Large-pipe inspection procedure.* In pipe 24-in. (600-mm) ID and larger, a manual, visual inspection of the lined pipe interior may be made by the purchaser to determine the quality of the lining and to identify defective areas in the lining for repair. Physical inspection shall adhere to appropriate safety precautions for confined space.

5.3.5 *Defective lining.* Defects in cement–mortar lining include, but are not limited to, sand pockets, voids, oversanded areas, excessively cracked and drummy

areas, areas of lining thinner than specified, and areas of unsatisfactory surface finish.

#### 5.3.6 *Repair of defective lining.*

5.3.6.1 Pipe less than 24-in. (600-mm) ID. In pipe less than 24-in. (600-mm) ID, the defective lining should be removed in total from the pipe segment before the lining has reached its initial set. The pipe segment shall then be relined in full compliance with project specifications. Defective lining rejected after initial set shall be repaired by the most practical method as determined by the purchaser, in consultation with the constructor.

5.3.6.2 Pipe 24-in. (600-mm) ID and larger. In pipe 24-in. (600-mm) ID and larger, defects in lining shall be repaired. Small defective areas shall be repaired by manual removal of the defective lining and by reapplication of mortar lining. Defective areas encompassing the full diameter of the pipe shall be replaced by machine wherever practical.

5.3.6.2.1 Lining cracks. Temperature and shrinkage cracks in the mortar lining less than  $\frac{1}{16}$  in. (1.6 mm) in width need not be repaired. Cracks wider than  $\frac{1}{16}$  in. (1.6 mm) need not be repaired if it can be demonstrated to the satisfaction of the purchaser that the cracks will heal autogenously under continuous soaking in water. The autogenous healing process may be demonstrated by any procedure that keeps the lining of the pipe continually wet or moist.

5.3.7 *Protection of lining.* Every precaution shall be taken to prevent injury to the lining. Should the constructor damage the lining at any time before completion of the contract, the damage shall be repaired conforming to the requirements of this standard.

#### 5.3.8 *Guarantee and performance criteria.*

5.3.8.1 Guarantee. If an examination by the purchaser of the cement-mortar lining work within a period of one year after final completion and acceptance of the contract work reveals evidence of defective materials or workmanship as defined in this standard, then the purchaser shall act according to the remedies in Sec. 5.3.6 of this standard. The constructor shall perform the repair of defective work in a manner acceptable to the purchaser.

5.3.8.2 Performance criterion—surface finish. The Hazen-Williams  $C$  factor ( $C_{hw}$ ) is a generally accepted criterion for determining the acceptability of surface finish of cement-mortar lining in pipelines. (Table 2 and Sec. 5.3.8.1 are given as guarantees to acceptable performance in smooth-bore pipe.)



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## SECTION 6: DELIVERY

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### **Sec. 6.1 Marking**

This standard has no applicable information for this section.

### **Sec. 6.2 Shipping**

This standard has no applicable information for this section.

### **Sec. 6.3 Affidavit of Compliance**

The purchaser may require the constructor to provide an affidavit of compliance or material test reports stating that the materials used were in compliance with the requirements of this standard. The affidavit shall be signed by the constructor.

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# **History and Development Of Water Main Rehabilitation by In-situ Cement Mortar Lining Technology**

**Joseph Dioslaki**

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**Abstract:** The article expatiates on history, development, and technical advantage of Trench-less In-Place Cement Mortar Lining technology, which has been widely accepted for water main rehabilitation in USA.

**Key words:** Trench-less, In-Place Cement Mortar Lining, Water Main Rehabilitation, Technical advantage

Rehabilitation of water mains by trenchless technology methods are widely accepted in the United States. In place rehabilitation of water mains are generally accomplished by the following methods:

- Cement Mortar lining
- Epoxy Lining
- Slip-lining
- Cure-in-place
- Pipe Bursting

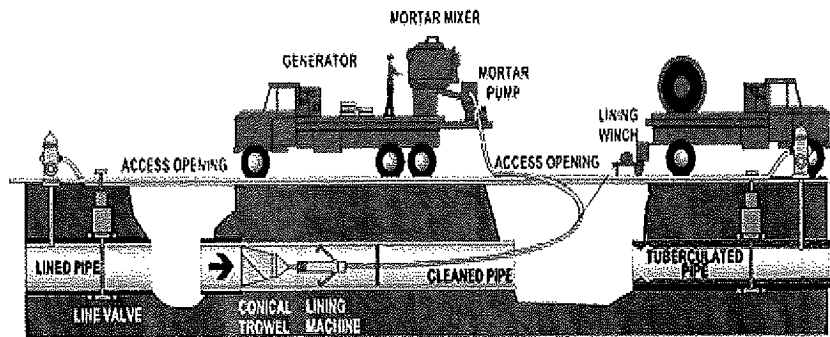
This article will address Cement Mortar Lining technology, the most widely accepted and used technology for the rehabilitation of water mains in the United States of America. The unique benefits of this method have been undiscovered in many communities throughout the world since very few introductions of this process have been made in recent times.

## **In Place Cement Mortar Lining Operating Procedures**

The following steps briefly describe the basic operating procedures:

1. Install Bypass
2. Excavate Access Pits
3. Clean Pipe
4. Apply Mortar
5. Clear Services
6. Cure Mortar

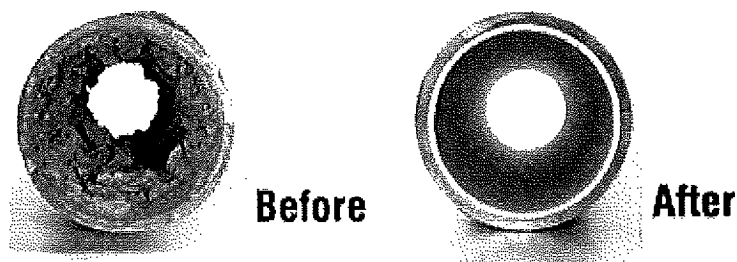
7. Pressure Test Pipe
8. Disinfect Pipe
9. Tie In To Existing System
10. Remove Bypass and Connect Services



In Place Cement Mortar Lining Operating Procedures

### History and Development of Cement Mortar Lining in USA

In the United States of America between 300 and 400 miles (between 482 and 643 km.) of water main are rehabilitated with the **In-Place Cement Mortar Lining Process** each year. This process is the most widely accepted and used technology for the rehabilitation of water mains in existence. Through the early 2000's it is estimated that over 7,000 miles (11,265 km.) of water main, ranging in diameter from 3 inches to 336 inches (7.6 cm. to 850 cm.), have been rehabilitated throughout the world by this in-place cement mortar lining process. The use of this process far exceeds the combined use of all other rehabilitation methods in existence today. The reasons for this wide acceptance are numerous. Below follows a brief history detailing cement mortar lining's evolution and growth.



Watermain Rehabilitated Before and After

The use of cement mortar as a protective lining for water mains was first reported by the French Academy of Science in 1836. By 1850, cement-lined hand coated riveted steel pipe was introduced in the United States. In the early 1930's a practical method was developed to line pipes using cement mortar by leaving the pipe intact and "in-place". This prompted the first field trial of in-place cement-mortar lining performed in Jersey City, New Jersey on a short section of 72 inch (1,830 mm) diameter steel pipe. The

success of this trial was the prelude to the 1934 cleaning and lining of 27,551 feet (8,397 m) of aged, 48 inch (1,220 mm) riveted-steel pipe supplying Newark, New Jersey. The cement mortar lining increased the Hazen-Williams<sup>1</sup> flow coefficient (from 70 to 124) to exceed its original capacity by covering over rivets and seams creating a smoother contoured pipeline, lessening disturbances in the flow stream. The cement lining also stopped all leakage that previously was occurring at seams and rivets. In 2002 this pipeline was opened, and the cement lining was observed to be in good condition.

In 1939 American Water Works Association (AWWA) published the standard for factory application of cement mortar lining to new pipe<sup>2</sup>. This standard was titled, Standard for Cement Mortar Protective Lining and Coating for Steel Water Pipe. Due to technology limitations, until 1950 the smallest diameter pipe that could be rehabilitated in-place was 24 inch (600 mm) because man entry was required to control the lining machine within the pipe. In 1950, a small diameter centrifugal lining machine that did not require man entry was developed, allowing the in-place lining of smaller diameter pipelines. As a result, in 1955 the in-place lining standard titled, AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place, Sizes 16 In. and Larger was published. By 1962 in-place cement mortar lining included pipe as small as 4 inches (100 mm) in diameter. The most recent update of this AWWA standard is dated 2000. Today technology permits in-place cement mortar lining of pipelines ranging in diameter from 3 inches (75 mm) to 28 feet (9.2m).

Beginning in the mid 1950's, a phased program by the AWWA required larger diameter water mains to be installed with an internal cement mortar lining to prevent internal corrosion and tuberculation. This requirement was the catalyst for the factory applied cement mortar lining that coats internal surfaces of new steel and ductile iron water mains being installed today. By 1965 the AWWA completed the phasing program and *required that all new steel and cast iron water mains be installed with an internal cement mortar lining*. It is clear that the benefits of cement mortar lining were understood. Since the water distribution grids in major cities throughout the United States were already mature before this date, water distributors began to notice flow reductions and discolored water due to iron oxidation and the internal buildup of corrosion. Flow reduction on the larger diameter water mains significantly affected pumping costs, while flow reductions on the smaller diameter mains alarmingly reduced flows available at fire hydrants. It quickly became evident that rehabilitation or replacement were the only options and that in-place cement mortar lining was determined to be the most economical and practical solution.

Programs were instituted to rehabilitate entire city distribution systems in a methodical fashion, starting with large diameter trunk mains, and then continuing with smaller diameter distribution grids. By 2004, some cities such as Los Angeles, California and Louisville, Kentucky had nearly completed their rehabilitation programs, while some cities such as Baltimore, Maryland and Boston, Massachusetts were in the midst of their programs. Yet other cities such as Columbia, South Carolina and Nashville, Tennessee where just beginning their rehabilitation programs.

Today, in-place cement mortar lining of cast iron and steel water mains ranging in size from 3 inches (75mm) to 28 feet (9.2m) in diameter are common practice for the economical rehabilitation of water mains in most major cities throughout the United States. These rehabilitation programs are ongoing. Water distribution agencies familiar with the cement mortar lining process maximize the use of in-place cement mortar lining since it is the most economical rehabilitation technique available. Included among them are:

• Baltimore, Maryland	• Jersey City, New Jersey
• Altoona, Pennsylvania	• Monroe County, New York
• Columbia, South Carolina	• Cleveland, Ohio
• Cincinnati, Ohio	• Los Angeles, California
• Denver, Colorado	• Boston, Massachusetts
• Louisville, Kentucky	• Nashville, Tennessee
• Chicago, Illinois	• Washington Suburban San. Com.
• New Jersey American Water Co.	• Aqua Pennsylvania

These cities and water authorities are just a few of the agencies throughout the country that have ongoing cement mortar lining rehabilitation programs. This process is the most widely accepted and used technology for the rehabilitation of water mains in existence. The cement mortar lining rehabilitation programs throughout the United States have been found to effectively double the useful service life of cast iron, ductile iron, and steel water mains, at 30 to 50 percent of replacement costs.

### **The Unique Technical Properties of In Place Cement Mortar Lining**

The application of cement mortar lining to the interior of ferrous-metal water pipelines (steel, cast iron, ductile iron) provides a smooth protective finish that indefinitely protects against internal corrosion and tuberculation. As such, the lining also prevents the recurrence of internal corrosion and tuberculation in aged water pipelines provided that proper cleaning is performed in preparation for the lining application. The lining increases pipe carrying capacities by reducing friction caused by internal surface irregularities. As a result, water distributors benefit by maximizing hydraulic carrying capacities, minimize pumping costs, preventing customer complaints of discolored water, and economically doubling pipe service life expectancies by up to 75 years.

### **Corrosion Prevention and Hydraulic performance of Cement Mortar Lining**

Cement mortar linings are unique, in that they are porous structures. Corrosion protection is achieved by the development of a highly alkaline environment within the pores. This environment is a result of the production of calcium hydroxide during cement hydration. Cement Mortar Lining (CML) is a positive way to prevent corrosion on the interior surface of cast iron pipe once and for all. The CML maintains an alkali surface on the cast iron (or ductile iron) pipe that effectively prevents corrosion for as long as the lining remains in the pipeline. This is much better than "barrier to corrosion" or a coating

system that works as a barrier and tries to prevent corrosion by keeping moisture from coming into contact with the pipe.

In addition to the water quality improvement, cement mortar lining can greatly increase the hydraulic performance of the water main. Pipeline's Hazen-Williams C factor could achieve 130~140 after being rehabilitated by cement mortar lining, which is approximately equal to new HDPE and FRP pipe (C factor is about 140). But CML typically costs less than 50% of replacement costs, and has a life span in excess of 75 years. (as the diameter increases, the proportion of savings also increases dramatically).

The difference between In-Place CML and Factory CML by way of quality

In place CML is superior to factory CML because it is made typically with a one to one ratio of silica sand to Portland cement which provides a very durable lining with compressive strengths in excess of 7,500psi while factory linings are typically a three to one ratio. Further, in-place linings are under optimum curing conditions since water is typically introduced into the main about one day after the lining is applied. Further still, the in-place lining is applied centrifugally as opposed to the factory lining in which the pipe is spun so the factory process allows segregation of the cement mortar materials. As a result, the original mixing proportion (cement/sand ratio 1:2) changes, based on the concentration of CaO, the mixing proportion ranges from 3:1 (water side) to 1:3.7 (pipe wall side). The in situ lining develops no separation of grain sizes. The cross section produces a constant mixture of 1:1 as applied.

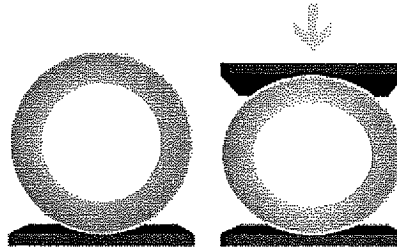
According to studies performed in Dortmund of Germany from 1972 to 1980, factory lined pipe tended to form a brittle layer on the surface of the factory lining after only three years of service. On the other hand, in-place cement mortar linings were found all to be in good condition even after 18 years of operation.

Structural performance of Cement Mortar Lining

CML itself is structural to a point. This was demonstrated in the Detroit Test which proved that a layer of less than ¼ inch CML is not as weak as thought. For a fully structural replacement that can withstand load forces and internal pressures Reinforced CML can be used on water mains 30" diameter and larger.

In 1950s, the ability of a cement-mortar lining to remain in place during deflection of the pipe was demonstrated in a deflection test conducted on a 72" (1,828.80 mm) diameter welded steel pipe section with a 5/16" (7.94 mm) wall thickness. A 1/4" (6.35 mm) cement-mortar lining was centrifugally applied and allowed to cure properly. During the following 16-month period, the lining was thoroughly dried out and the pipe was subjected to shock and vibration tests to demonstrate the integrity of the lining. At the end of this period, various loads were placed on top of the section until eventually a load section of 13" (330.20 mm) on the vertical axis was reached. Although hairline cracks appeared during the deflection, no impairment to the lining was observed either during the test or afterward when the load was removed.

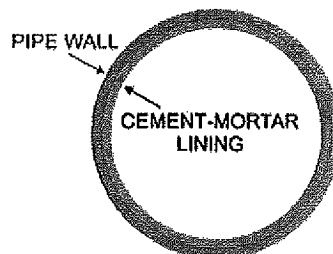
#### DURABILITY OF CEMENT-MORTAR LINING



Deflection Test of Cement Mortar Lining

A cement-mortar lining offers high compressive strength, creating an "arch action" which holds the lining in tight contact with the pipe wall. This is a major advantage over linings which rely on bond or adhesive strength to hold them in place. Cement mortar linings, while having substantial adhesion or bond, do not depend on bond to remain in place. A cement lining of proper thickness acts as a compression ring within a tension ring. It is a continuous arch which, being confined by the pipe, has no place to go. Deflection in a pipe merely increases the perimeter of the cement lining with respect to the pipe wall perimeter and thereby pushes the lining tighter against the wall of the pipe and resists the forces causing the deflection.

#### DIAGRAM OF ARCH ACTION INHERENT IN CEMENT-MORTAR LININGS



CEMENT LININGS:  
A CONTINUOUS RING,  
CONTAINED BY THE PIPE WALL

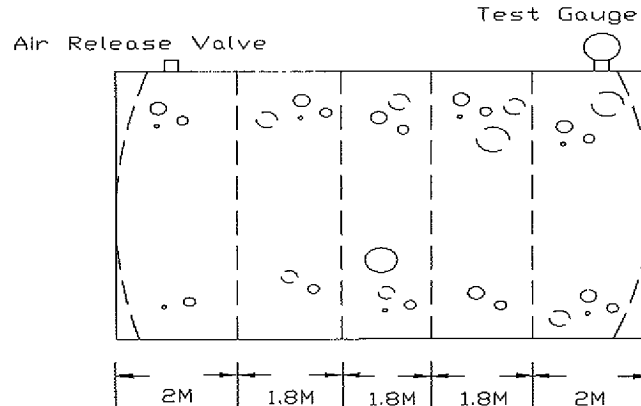
#### Ability of Cement Mortar Lining to prevent pipeline leakage

In Akron, Ohio, troubles had been experienced for some years from electrolytic action on the exterior of the city's 22 miles of parallel 36in and 48 in steel force mains. Leaks apparently resulting from corrosion started by electrolysis, continues to develop in both conduits. Investigation revealed that these leaks were caused by holes about  $\frac{1}{4}$ " in diameter, originating on the outside surface of the pipe. Resorting to tests which would simulate these actual conditions and using a comparable cement mortar lining  $\frac{1}{4}$  in thick, the engineers established to their satisfaction that holes not only of  $\frac{1}{4}$  in size, but up to and including 1  $\frac{1}{4}$  in could be spanned safely by this unsupported cement mortar lining and the leakage stopped even under water pressures of 200psi. though some "weeping"



was observable after passing 40lb. pressure in the tests, it completely stopped after 72 hours under test conditions.

Proof that Cement Mortar Lining prevents pipe leakage



Tests show that cement mortar lining prevents pipeline leakage and  
Is capable of bridging a hole over 6in diameter to withhold 305psi

In 1940 the city of Detroit, Michigan, conducted a pressure test on a length of 48" diameter x  $\frac{1}{2}$ " wall riveted steel pipe. The section to be tested was perforated with numerous holes from 1" to 6  $\frac{1}{4}$ " in diameter. Cement mortar lining was then applied to the inside of the pipe, the thickness of the lining graduating from  $\frac{1}{4}$ " at one end of the pipe to 1" at the other. After an adequate curing period, a prescribed hydraulic testing procedure was followed to determine the pressures at which failure might occur in the cement mortar lining. The large hole, 6  $\frac{1}{4}$ " in diameter, blew out at a pressure of 305psi, with a deflection before rupture of 0.05 inches. The thickness of the lining at this particular hole was  $\frac{5}{8}$ ". From this test it is concluded that cement mortar lining properly applied, provides positive protection against leakage under normal operating pressures.

---

**From:** Adamczyk, Lynne (GOV)  
**Sent:** Friday, January 29, 2016 3:48 PM  
**To:** Manolakoudis, Virginia (GOV); Clayton, Stacie (GOV); Agen, Jarrod (GOV); Sachs, Tori (GOV); Thelen, Mary Beth (DEQ)  
**Subject:** Document for Review - METRA  
**Attachments:** 01.29.16 - METRA Industries Documents to Assist in Flint Water System Problems.pdf

FYI

Lynne Adamczyk  
Executive Assistant  
Office of Governor Rick Snyder  
517-373-3400 (o)  
517-241-9412 (d)  
[adamczyk1@michigan.gov](mailto:adamczyk1@michigan.gov)

# METRA INDUSTRIES

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KCreagh

50 Muller Place  
Little Falls, New Jersey 07424  
(973) 812-0333  
FAX (973) 812-0330

January 26, 2016

Mayor Dr. Karen Weaver  
1101 S. Saginaw Street  
Flint MI 48502

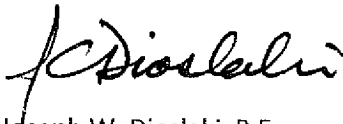
Dear Mayor Weaver,

We are writing regarding your efforts to correct the Flint drinking water problems. In many cases rehabilitation of existing water mains is more beneficial than replacement. Rehabilitation via in-situ cement mortar lining is a proven long term effective means of corrosion prevention. It is economical, effective, and minimally disruptive. We are enclosing the following three reference documents to assist in correcting the Flint water system problems.

1. American Water Works Association (AWWA) standard C602 for Cement Mortar Lining of Water Pipelines in Place 4 in. and Larger.
2. American Water Works Association (AWWA) manual M28 Rehabilitation of Water Mains (partial copy of manual)
3. History and Development of Water Main Rehabilitation by In-situ Cement Mortar Lining Technology

Metra Industries is proficient in the performance of In-Place Cement Mortar Lining of water mains as well as many other rehabilitation technologies. Please call if you have any questions. We would be very happy to help. Thank you.

Very Truly Yours,



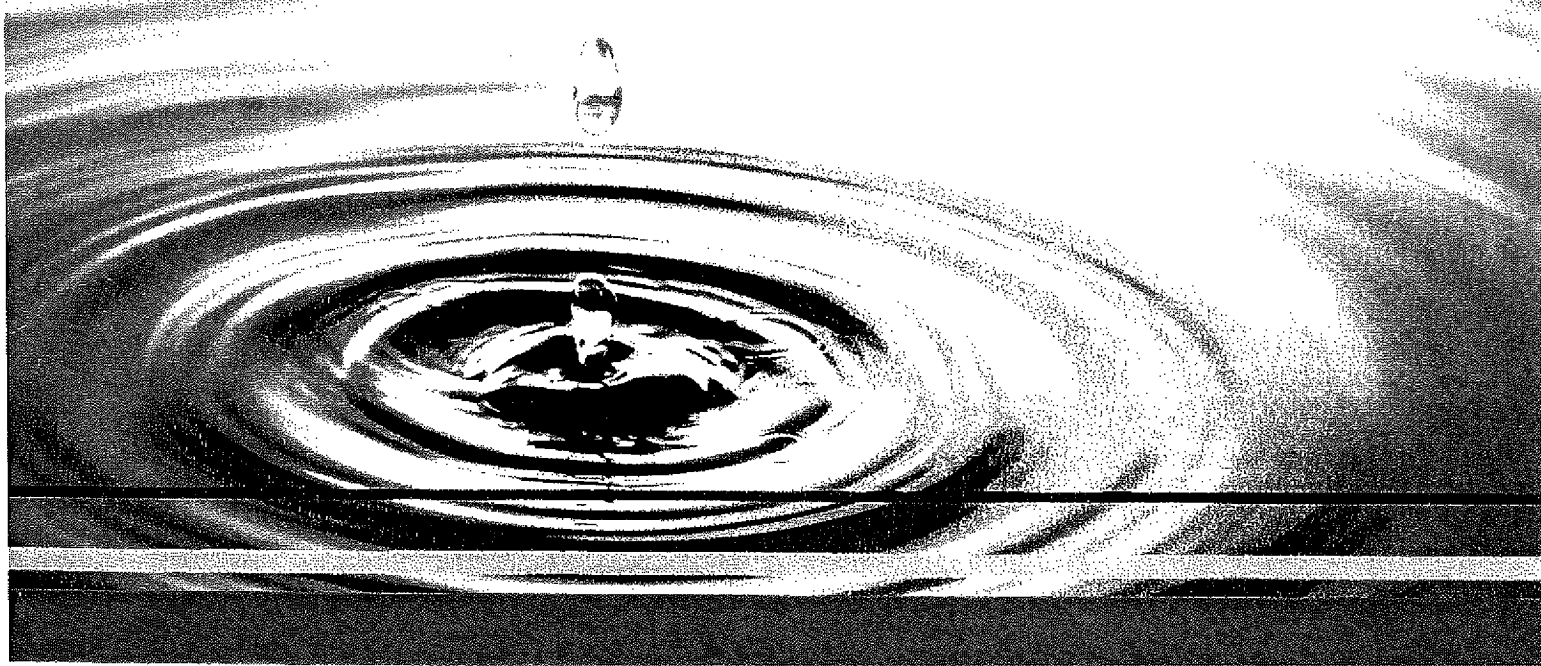
Joseph W. Dioslaki, P.E.  
Project Manager

CC: Governor Rick Snyder  
Bob Kaplan, EPA Region 5 Deputy Administrator  
Miguel Del Toral, EPA Region 5 Ground Water Drinking Water Branch Relations Manager  
Darren Lytle, EPA Office of Research and Development Scientist  
Michael Schock, EPA Office of Research and Development Scientist  
Jeff Kempic, EPA Office of Water Lead and Copper Rule Technical Lead  
Tim Henry, EPA Region 5 Water Division Deputy Director  
Tom Poy, EPA Region 5 Ground Water Drinking Water Branch Chief

# Rehabilitation of Water Mains

MANUAL OF WATER SUPPLY PRACTICES

28



American Water Works  
Association

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Conferences  
Education and Training  
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Sections

The Authoritative Resource for Safe Drinking Water™



## Chapter 1

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# Distribution System Performance Criteria

### WATER QUALITY

---

The quality of treated drinking water may vary considerably, both from system to system and within a system, as a result of deterioration after it leaves the treatment plant and comes in contact with the interior of distribution system piping. Over time, changes in water chemistry can cause problems throughout the distribution system, ultimately affecting the quality of the water delivered to the end user.

The specific nature of distribution system water quality problems vary with water chemistry. However, the majority of these problems fall into three categories: sedimentation, encrustation, and fouling.

#### Sedimentation

Sedimentation is the process whereby solids settle out of water moving at low velocity in a main, reducing interior cross section and capacity. Source water pipelines or pipelines carrying improperly treated water can be subject to deposits of sand, silt, or organic materials. In extreme cases, sedimentation can also contribute to hydraulic problems, particularly at low points in the pipe.

Even slight overtreatment of water can result in posttreatment precipitation within the distribution system of deposits containing alum, lime, or calcium carbonate. A utility may promote controlled precipitation to lay down a thin layer (eggshell coating) of calcium carbonate for protection of the metallic pipeline interior. However, excessive or irregular deposits can easily occur, requiring cleaning of the distribution system.

#### Encrustation

Encrustation is a by-product of corrosion (tubercles) mixed with mineral deposits, such as iron, manganese, and carbonates. Before the 1960s, many iron pipes were

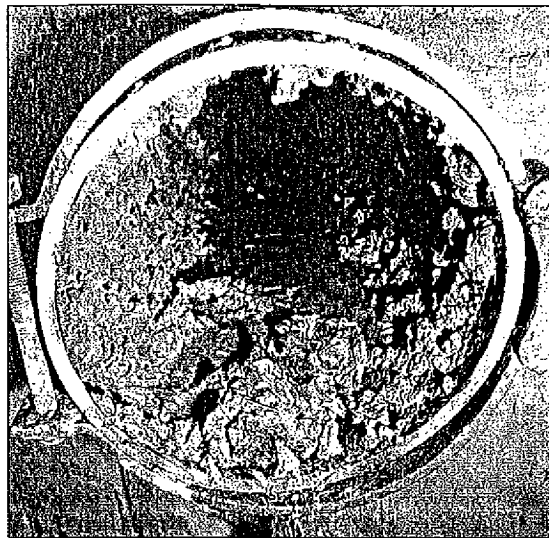


Figure 1-1 Pipe with problems caused by corrosion

installed without linings to protect the interior surfaces. These unlined pipes often experience internal corrosion.

As corrosion occurs, the interior of the pipe develops pits from which material is removed and tubercles where material is deposited (Figure 1-1). Additionally, corrosion can create "red water" complaints from end users. Corrosion may result from direct oxidation or electrolytic action, both fostered by aggressive water. Tuberculation can vary with water chemistry (from very soft to very hard water). Proper water chemistry does help to prevent additional buildup of encrustation. Most encrustation can be removed by cleaning. Perhaps the most significant water quality problem presented by encrustation are the potential difficulties maintaining a disinfectant residual. Removal of encrustation often increases a system's disinfectant residual; however, regrowth of encrustation is likely in unlined iron pipes.

### Fouling

Fouling represents a very significant problem, but one that is not always well-understood. A fouling problem can develop with any type of pipe material. The condition is usually caused by natural biological activity and results in buildup of an organic deposit on the interior of the pipe. Although this deposit is often soft and filamentous, it can severely affect water turbidity and cause taste-and-odor problems. Bacteriological activity from organisms, such as iron-fixing bacteria, can result in development of slimes and severe deposits in the pipe.

## HYDRAULIC PERFORMANCE

---

In addition to water quality problems discussed so far, any buildup inside distribution system piping can greatly reduce the hydraulic performance of the system. Hydraulic engineers have long determined flow in pipes by using the empirically derived Hazen-Williams formula:

$$V = 1.318Cr^{0.63}s^{-0.54}$$

Table 1-1 Hazen-Williams coefficient

Condition	C
New pipe	130-140
Fair to normal (interior clean)	100
Significant reduction in pipe capacity	70
Severe problem—interior cross section greatly reduced	30-50

where:

- $V$  = velocity, in ft/sec (m/sec)
- $r$  = hydraulic radius, in ft (m), which is the cross-sectional area of the pipe divided by the wetted perimeter
- $C$  = Hazen-Williams roughness coefficient
- $s$  = slope of the hydraulic grade line, in ft/ft (m/m)

$C$  (often called the "C factor") represents the coefficient of friction, a measure of the roughness of the interior of the pipe. Expressed in terms of  $C$ , the formula can be stated as:

$$C = 2,466QD^{-2.63}H^{-0.54}L^{0.54}$$

where:

- $C$  = Hazen-Williams roughness coefficient
- $Q$  = Quantity of flow in a pressure conduit, in mgd ( $m^3/d$ )
- $D$  = Nominal diameter of the pipe, in in. (mm)
- $H$  = Head loss, in ft (m) of water
- $L$  = Length of pipe, in ft (m)

The  $C$  factor, and hence the flow in a pipeline, depends on the type of pipe and its interior condition (see Table 1-1). For a given velocity, increased internal surface roughness (changing laminar to turbulent flow) can lead to a reduction in overall pipeline efficiency.

Field testing techniques allow distribution system operators to calculate Hazen-Williams  $C$  factors for their systems. These data help in making informed decisions about which process to employ to restore hydraulic efficiency. Collecting data for the Hazen-Williams  $C$  factor after employing any cleaning or pipe rehabilitation process is also a very useful way to gauge the impact of the system improvements.

## STRUCTURAL PERFORMANCE AND LEAKAGE

The structural performance of a water main may deteriorate over time because of a number of effects. Cast-iron, ductile-iron, and steel piping may be subject to internal and/or external corrosion, resulting in pitting and wall thinning, which can lead to leakage and eventual burst failures. Cement-based pipes such as asbestos-cement and concrete piping may also be subject to deterioration due to corrosion of the cement matrix and/or steel reinforcement. In addition, all types of pipe, including thermoplastics, may be subject to joint failure between pipe lengths and hence excessive leakage, which can in turn lead to washout of bedding and subsequent structural failure.

Such structural and leakage failures can have direct consequences such as high maintenance costs, water quality problems, service interruptions, and loss of valuable treated water. They may also have indirect consequences in terms of the economic and public relations costs of damage associated with bursts and the overall public image of the service provider.

## REHABILITATION SOLUTIONS

---

This manual describes a number of possible solutions to problems arising from corrosion and deposition. These range from simple periodic cleaning to replacement of the pipe using "trenchless" techniques. All of the solutions discussed in the manual make some use of the existing pipe, either as part of the rehabilitated system (renovation solutions) or as a convenient route for installation of new piping (replacement solutions). Solutions involving installation of a replacement pipe along a new route, such as open trench laying, directional drilling, and microtunneling, are outside the scope of this manual.

Selecting the optimal solution to a specific pipeline problem is a complex process involving both technical and economic considerations. Both the American Water Works Association Research Foundation and a number of AWWA technical committees are developing computer-based decision tools to assist utility engineers in this process. This work is expected to come to fruition while this edition of the manual remains in effect. In the meantime, the following guidelines may prove useful.

## SELECTION OF REHABILITATION SOLUTIONS

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Key elements in the selection of a rehabilitation solution are

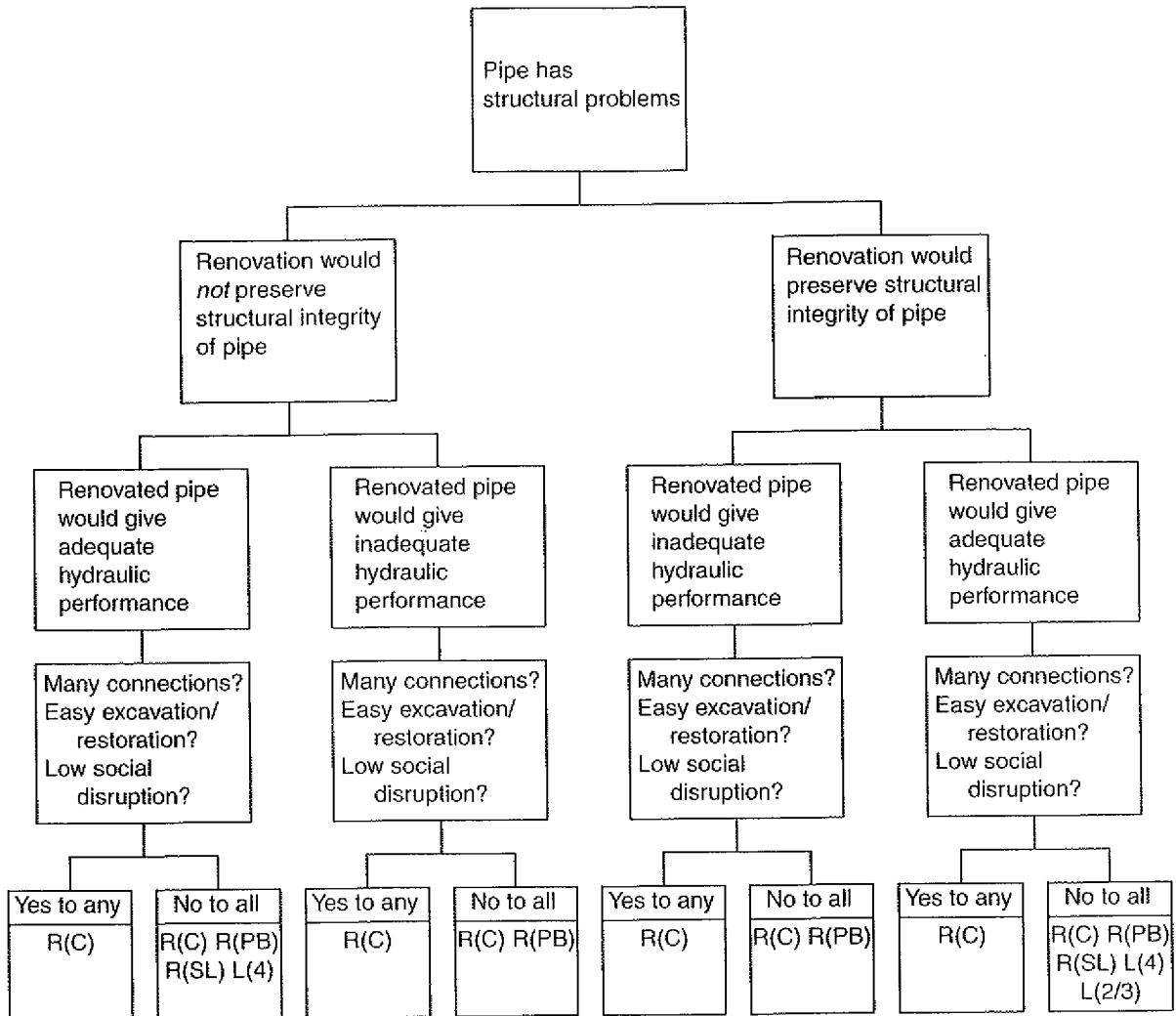
1. The exact nature of the problem(s) to be solved
2. The hydraulic and operating pressure requirements for the rehabilitated main
3. The materials, dimensions, and geometry of the water main
4. The types and locations of valves, fittings, and service connections
5. The length of time in which the main can be taken out of service
6. Site-specific factors

The aim of the selection process is to consider all these factors to arrive at the most cost-effective, technically viable solution. Ideally, the cost estimate should include not only direct contracting and related costs but also indirect costs associated with public disruption and longer-term maintenance and other "life cycle" costs.

One approach to technique selection is summarized in Figures 1-2, 1-3, and 1-4. Together, these charts provide a framework for selecting or rejecting groups of techniques, depending on the nature of the performance problems, hydraulic requirements, and some site-specific factors. In some cases, the charts indicate use of lining techniques classified as either Class I (nonstructural), Class II/III (semistructural), or Class IV (structural). A more detailed discussion of this classification system and of other key design issues associated with such lining techniques is presented in appendix A.

The figures do not list cleaning as a solution for water quality or flow and pressure problems. Cleaning with one of the various techniques discussed in the manual may well offer the lowest-cost immediate solution to many of these problems. It may offer a long-term solution if repeated as required or combined with chemical treatment of water to prevent or delay recurrence of the original problem. However, cleaning is more frequently used as a necessary preliminary step before carrying out one of the lining processes described in the manual.





R(C)—Replacement (conventional or boring/directional drilling)  
 R(PB)—Replacement (pipe bursting)  
 R(SL)—Replacement (slip-lining)  
 L(2/3)—Lining (semistructural—Class II/III)  
 L(4)—Lining (structural—Class IV)

Figure 1-2 Selection of rehabilitation techniques to resolve structural problems

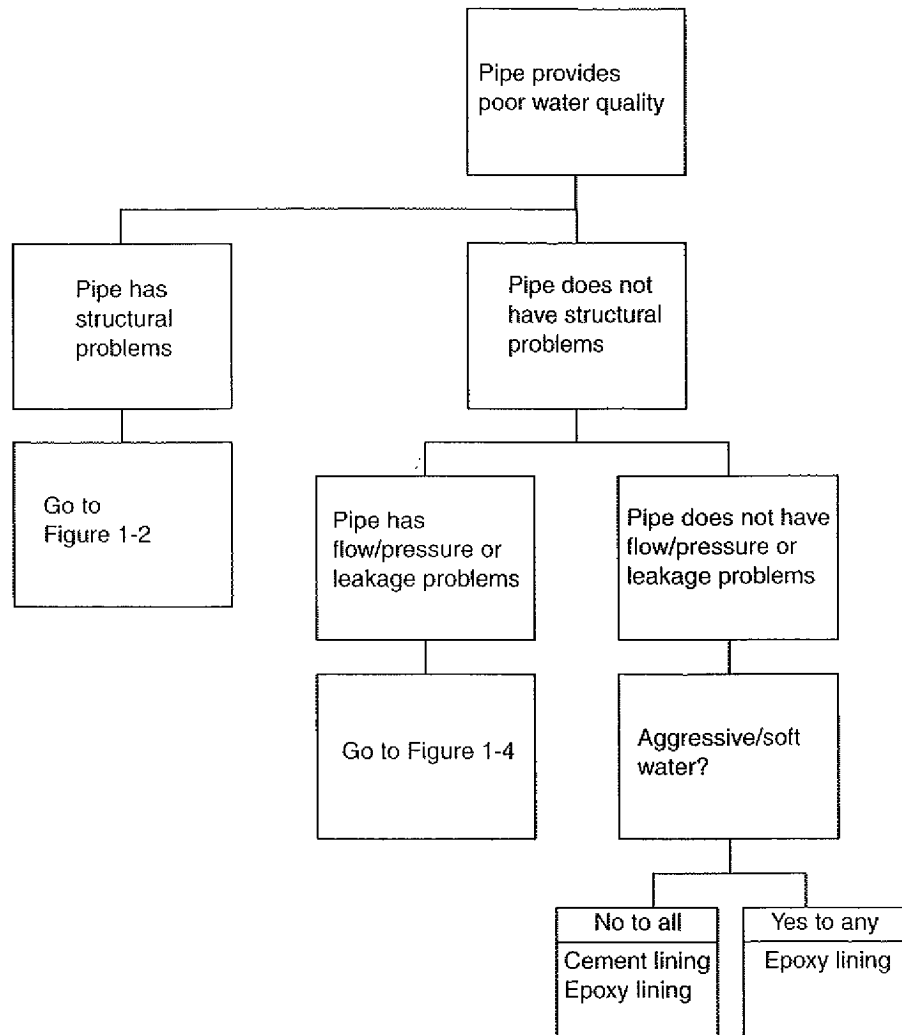
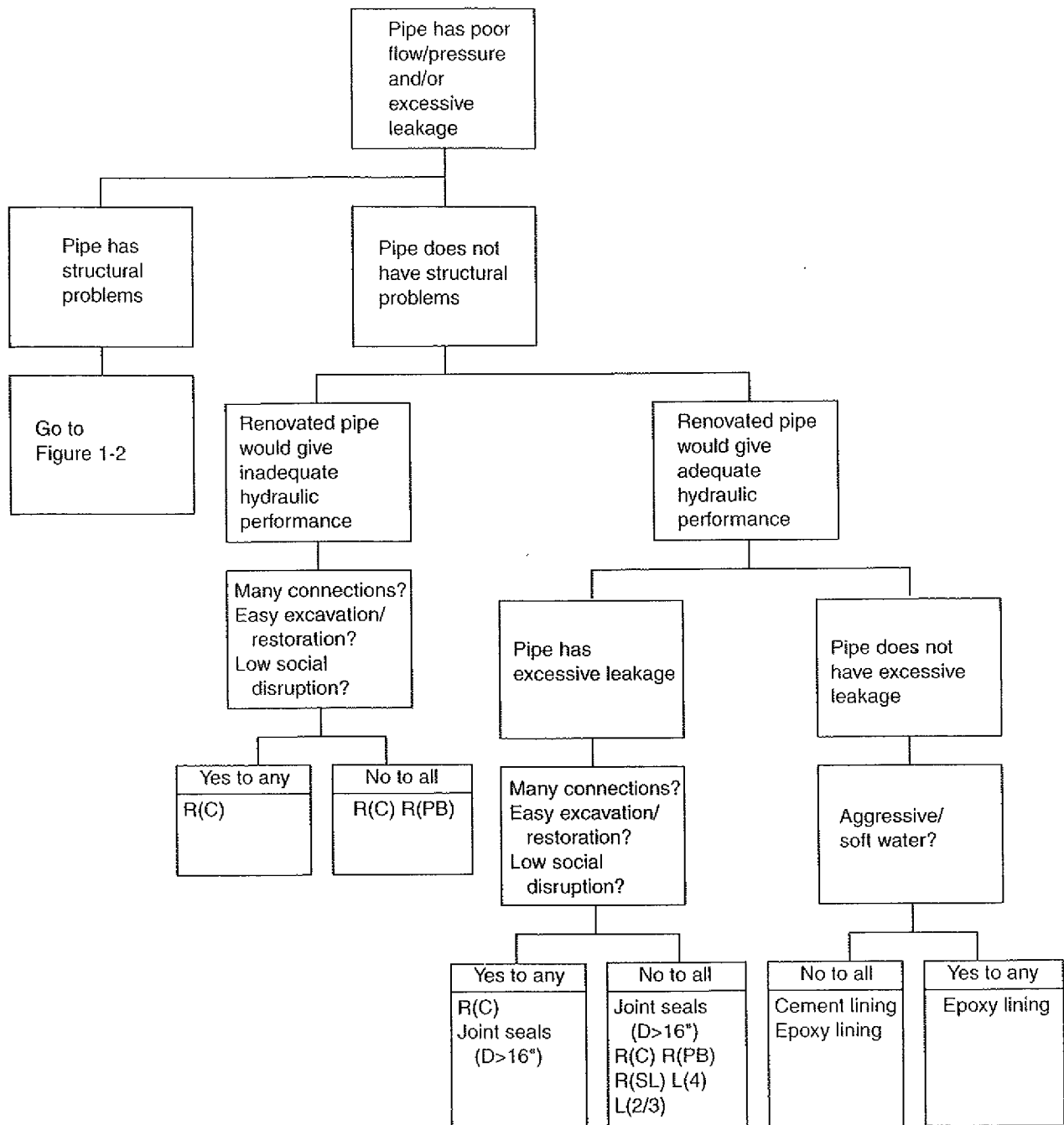


Figure 1-3 Selection of rehabilitation techniques to resolve water quality problems



R(C)—Replacement (conventional or boring/directional drilling)  
 R(PB)—Replacement (pipe bursting)  
 R(SL)—Replacement (slip-lining)  
 L(2/3)—Lining (semistructural—Class II/III)  
 L(4)—Lining (structural—Class IV)

Figure 1-4 Selection of rehabilitation techniques to resolve flow, pressure, and leakage problems



## Chapter 2

---

# Cleaning

Water mains can be cleaned in place in a water distribution system using one or more of the following methods:

- Flushing
- Cable-attached devices
- Fluid-propelled devices
- Power boring

Dispose of cleaning water and debris in accordance with applicable regulations. Refer to AWWA Standard C651, *Disinfecting Water Mains*, for guidance in disinfecting pipelines before returning them to service.

## FLUSHING

---

Water main flushing has a definite place in distribution system operation. It is particularly effective for light cleaning jobs. Mains should be flushed to clean newly installed and repaired mains prior to and after disinfection. Routine flushing is needed to remove impurities that cause complaints or are considered hazardous to public health. Refer to the AWWA handbook titled *Maintaining Distribution-System Water Quality* for specific flushing program guidelines.

Flushing should never be considered the only solution to water quality problems identified in the distribution system. Proper design and operation of distribution facilities and an effective backflow-prevention program should also be part of any effort to maintain water quality. While quality control is the primary purpose of flushing, careful observation of system hydraulics during flushing may indicate problems in mains, such as inadequate capacity, undiscovered restrictions, or closed or partially closed valves.

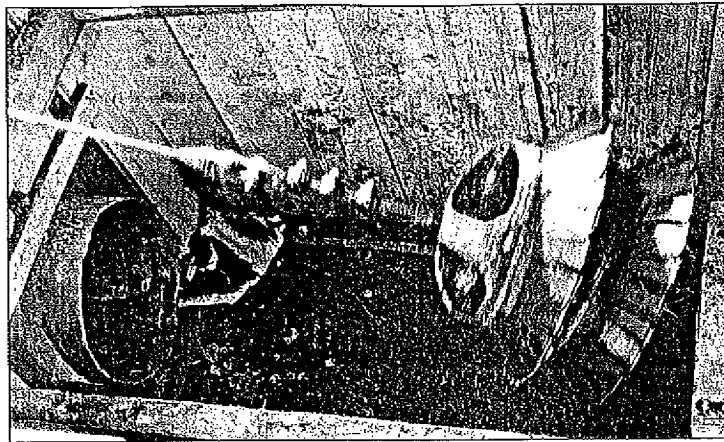


Figure 2-1 Drag cleaning, in which a winch pulls a mechanical cleaner through the pipe

## CABLE-ATTACHED DEVICES

Systems that use cable-attached devices for cleaning distribution mains include drag cleaning, hydraulic-jet cleaning, and electric scraper cleaning. In each case, the length of hose or cable determines the length of the pipe section that can be cleaned.

### Drag Cleaning

In drag cleaning, a winch pulls a mechanical cleaner, composed of a series of steel scraper blades and rubber squeegees, through the pipe (Figure 2-1). The mechanical cleaner is usually flexible, allowing it to negotiate bends of up to 45°. Both ends of the cleaner are fastened to steel cables, which are attached to winches at either end of the pipe section to be cleaned. The cleaner is winched first in one direction and then in the other, and this process continues until the pipe is satisfactorily cleaned.

This cleaning method offers important advantages:

- Cleaning can be accomplished when water pressure or volume is insufficient to propel a hydraulically driven device, or when excessive pressure would be required for hydraulic cleaning, especially with small-diameter mains.
- Very hard deposits and encrustation can be removed.
- Dry solids allow easy disposal.

### Hydraulic-Jet Cleaning

To clean pipe with a hydraulic jet, a special nozzle attached to a hose emits a jet of water at high velocity and pressure that removes debris and deposits from the interior of the pipe. Nozzle pressures of 1,000 to 10,000 psi (6,900 to 69,000 kPa) and above can be generated using this system. The jetted stream of water must bear hard enough against the scale or deposit to breach it and dislodge particles. Once the scale or depositional material is penetrated, the fluid forms a wedge between the deposit and the surface and strips off the deposit, exposing the clean metal surface. In many jetting operations, dislodged particles are entrained in the jetting stream and effectively dislodge more particles. The principal advantage of this method is removal of very tough deposits.

## Electric Scrapers

Electric scrapers are used to clean large-diameter lines. A variation of this cleaning method is the use of an electrically powered, operator-driven scraper. This power-driven scraper incorporates revolving brushes or rotating arms to clean the line.

The principal advantage of this method is the ability of the operator to evaluate the effectiveness of the cleaning process as it proceeds through the line.

## FLUID-PROPELLED CLEANING DEVICES

This section of the chapter describes fluid-propelled cleaning devices such as foam pigs and mechanical metal scrapers.

### Foam Pigs

Foam pigs are flexible, bullet-shaped cleaning tools manufactured of high-quality (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density) open-cell polyurethane foam, some coated with polyurethane synthetic rubber coatings (70 lb/ft<sup>3</sup> [1,121 kg/m<sup>3</sup>] density). (See Figures 2-2 and 2-3.) Pigs are propelled down water mains by the pressure and volume of water in the distribution system. Cleaning is accomplished by the frictional drag and flexible characteristics of the foam pig, which removes foreign objects, iron tuberculation, and other matter as it passes through the pipes, leaving the interior surfaces as smooth and free from irregularities as age, attrition of use, and type of piping material will allow. When water pressure is applied for propulsion, a certain amount of water bypass (approximately 10 percent) helps to keep loose debris suspended out in front of the foam pig (Figure 2-4).

Cleaning of deteriorating mains generally requires a series of swabs and foam pigs applied in progressively larger diameters (referred to as *progressive pigging*) until the pipe is restored to its original diameter.



Figure 2-2 Foam pig: A bullet-shaped device made of polyurethane foam



Figure 2-3 A foam pig with hardened coatings

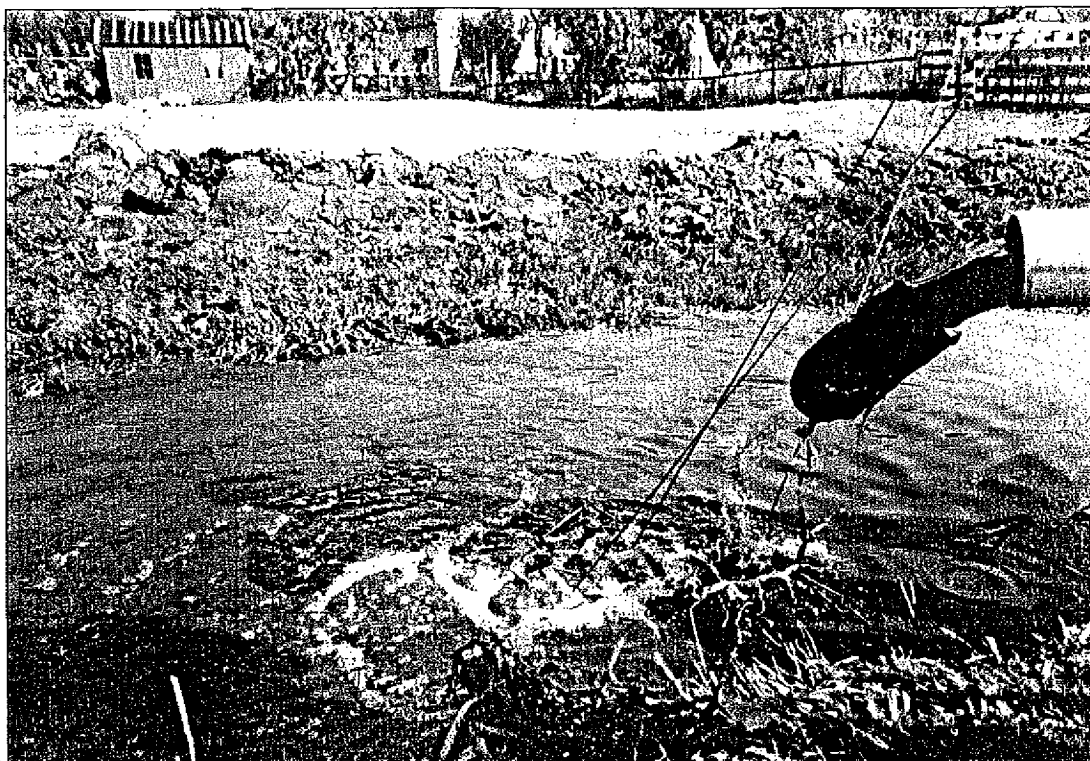


Figure 2-4 Loose debris flushed ahead of the pig

**Operating procedures.** The following steps briefly describe the most common operating procedures for cleaning water distribution mains with foam pigs. The described procedure is based on a best-case scenario; actual procedures may vary for certain applications.

1. Review drawings of lines to be cleaned to identify a) possible entry and exit points, and b) all valves to be used to isolate the section of system to be cleaned.
2. Exercise all valves in the section to be cleaned before the pigging operation to ensure isolation of the section to be cleaned.
3. Flow tests should be performed before and after the pigging operation to evaluate the efficacy of the cleaning and determine the resulting condition of the water main.
4. Provide adequate means for disposing any debris exiting the pipe. Storm drains may be suitable for disposing of small amounts of light debris. However, the best arrangement for handling large amounts of heavy debris would be to direct the flow to a temporary settling pond, the bed of a dump truck, etc., to facilitate removal of solids once the water has drained away.
5. Notify all affected customers (commercial and residential) as well as fire department officials of the scheduled interruption of service.

6. Confirm that all valves in the section to be cleaned are fully opened and working properly and that the section is properly isolated. Foam pigs follow the direction of flow, which must be controlled by the valve locations.
7. Introducing the foam pigs into the water main may be accomplished either by hand or through the use of mechanical equipment commonly called a *pig launcher*. Several types of fire hydrants, once they are disassembled, can be used as entry and exit points for pigging of some water mains 6 in. (150 mm) and smaller (Figure 2-5).
8. To produce the best cleaning results, foam pigs should travel through a water main at a rate of 3 to 9 ft/sec (9 to 24 m/sec).
9. Sequence of foam pig runs:
  - a. Introduce a line-sized, soft-foam swab (1.5 to 2.0 lb/ft<sup>3</sup> [24 to 32 kg/m<sup>3</sup>] density, uncoated), called a *prover pig*, to determine the actual effective inside diameter of the pipe to be cleaned. The swab wears down while passing deposits in and along the pipe wall.
  - b. Introduce a line-sized bare foam pig (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density, uncoated) to remove soft deposits and help gauge the true opening in the line.
  - c. Introduce a line-sized, coated foam pig (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density, coated with urethane elastomer). This type of foam pig should be run repeatedly until one emerges in reusable condition. A water line with excessive buildup should be pigged using the progressive pigging method, beginning with undersized, coated foam pigs and gradually increasing the size in successive passes until a line-sized foam pig emerges in reusable condition.

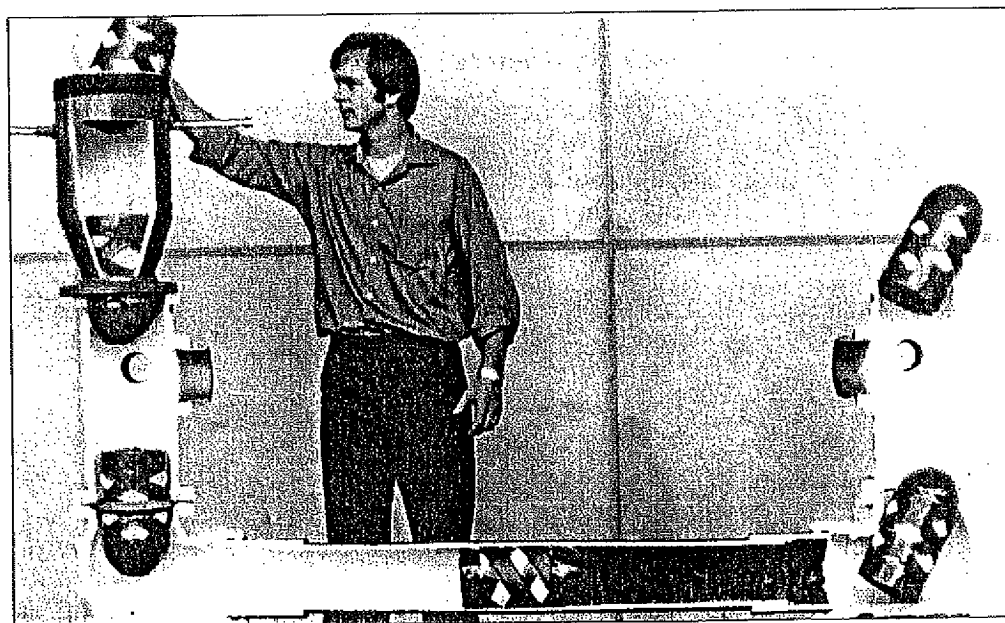


Figure 2-5 Pigs launched through a disassembled fire hydrant for a 6-in. (150-mm) or smaller line



- d. Line-sized, wire brush foam pigs may be introduced following these applications for final removal of extremely hard deposits (such as tuberculation).
  - e. Introduce a line-sized swab (1.5 to 2.0 lb/ft<sup>3</sup> [24 to 32 kg/m<sup>3</sup>] density foam, uncoated) to sweep out any loose debris and determine the effectiveness of the cleaning process.
10. Flush and disinfect as required.
  11. Place the water main back into service.

Foam pigs are flexible enough to negotiate short-radius bends and pass through full-port valves and some types of plug valves. Their capability to be compressed up to 35 percent of their cross-sectional area allows them to pass through multidimensional lines and full-port valves. A piggable valve is one through which a pig will pass every time. Foam pigs do not pass through butterfly valves. Foam pigs can clean long sections of piping from one entry point, thus reducing the number of excavation sites required. Pigging is a fast, simple, and cost-effective method of returning most deteriorated piping systems to as-designed capacity and efficiency.

## Metal Scrapers

A metal cleaning scraper consists of a steel frame shaped like a piston. Specially tempered steel blades are attached around the scraper at various angles to create a scraping and brushing action (Figures 2-6 through 2-8). The cleaner is propelled through the water main by means of water pressure.

Cleaning is often accomplished with a single pass in a continuous operation; sometimes, however, interior pipe conditions may require additional passes. The length of pipeline that can be cleaned hydraulically in one operation is limited only by the availability of volume and pressure water and a proper means of disposing of water and deposits. An opening must be provided at each end of the section to be cleaned for entry and exit of the cleaning tool. The volume of water required to hydraulically clean

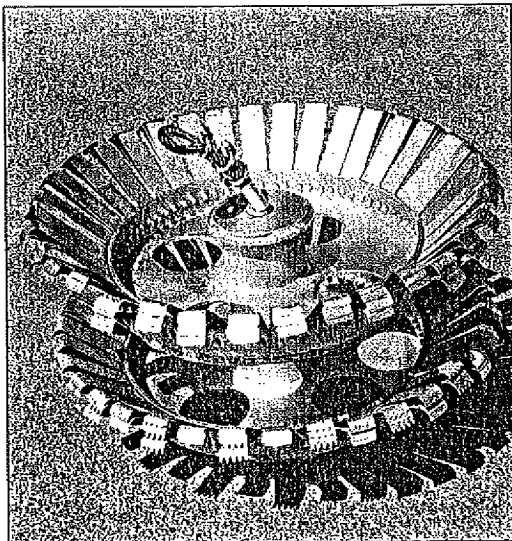


Figure 2-6 Scraper unit with specially tempered steel blades

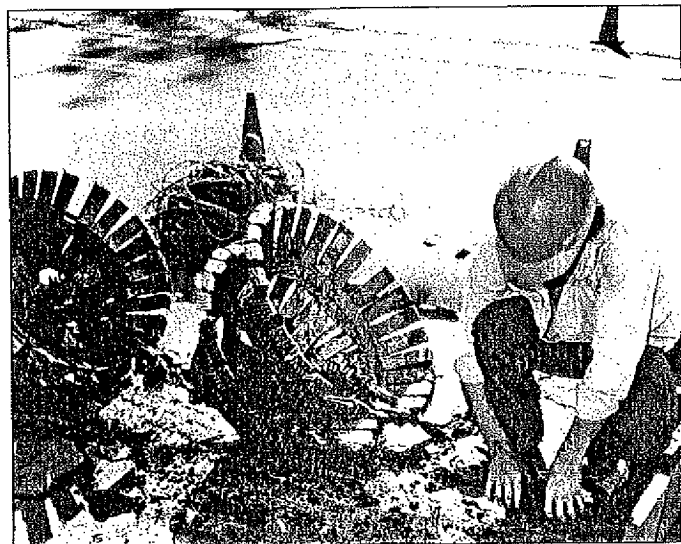


Figure 2-7 Several scraper units assembled together in the field

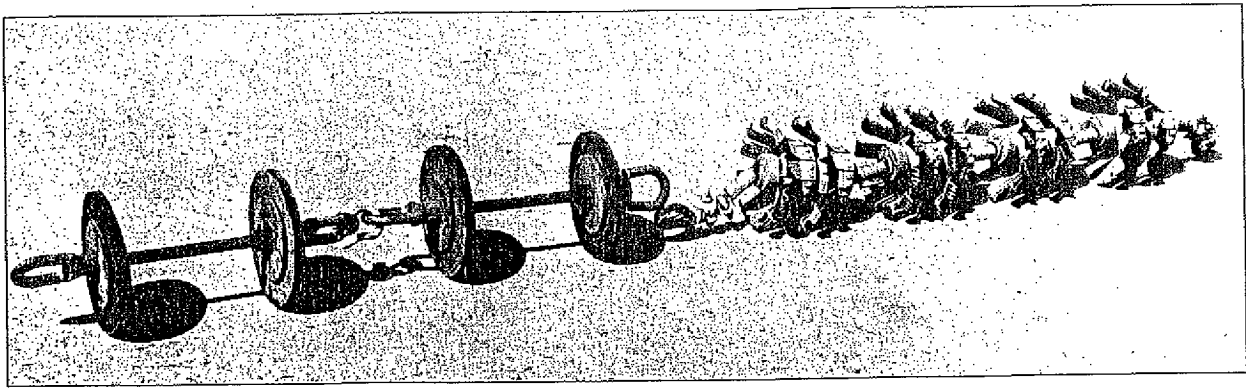


Figure 2-8 A series of disks to act as a hydraulic piston, pulling scrapers through the line

a pipeline will depend, to a great extent, on how dirty the water is. Sufficient water must be added behind the cleaner to fill the pipe as the cleaner moves ahead.

The water that passes the cleaner scours the wall of the pipe and washes ahead the material that is scraped off the pipe. While the velocity of water ahead of the cleaner is independent of cleaner speed, it must be sufficient to remove the deposits. Experience indicates that a flow velocity ahead of the cleaner of between 2 and 10 ft/sec (0.6 and 3.0 m/sec) is required to remove the deposits. In a small pipe, because a relatively large amount of material must be moved for the volume of the pipe, a relatively high velocity is required.

The cleaning water and deposits must be discharged from the pipeline in a way that avoids creating a nuisance or environmental problem. A sandbag dam can be constructed to create a pond for particle settlement (Figure 2-9). This allows the clean water to be decanted to a storm drain while any solid material is collected and properly disposed of. Another method is to pipe the water to a dump truck, catching the solids in the truck and allowing the water to run off into a storm drain.

**Operating procedures.** The following steps describe the operating procedures commonly used when cleaning water pipes with mechanical scrapers.

1. Review drawings of lines to be cleaned. Identify logical entry and exit points for the cleaning tool. Note all valves, service connections, and other components that must be opened or closed to isolate the line to be cleaned. Conduct C-factor tests (if not previously completed) to determine the condition of the line.
2. Excavate and install a spool piece at each entry and exit point (Figure 2-10). Obtain a sample of deposits in the line and determine their average thickness.
3. Determine source of cleaning water (e.g., reservoir, feeder mains, parallel lines, etc.). Cleaning for lines 12 in. (300 mm) in diameter and smaller may require auxiliary pumps to provide adequate flow and pressure; flow and pressure within the system generally are adequate to clean mains over 12 in. (300 mm) in diameter.
4. Provide suitable means for disposing water and removed solids.
5. Notify all affected commercial and residential customers, as well as fire department officials, of the scheduled interruption of service.

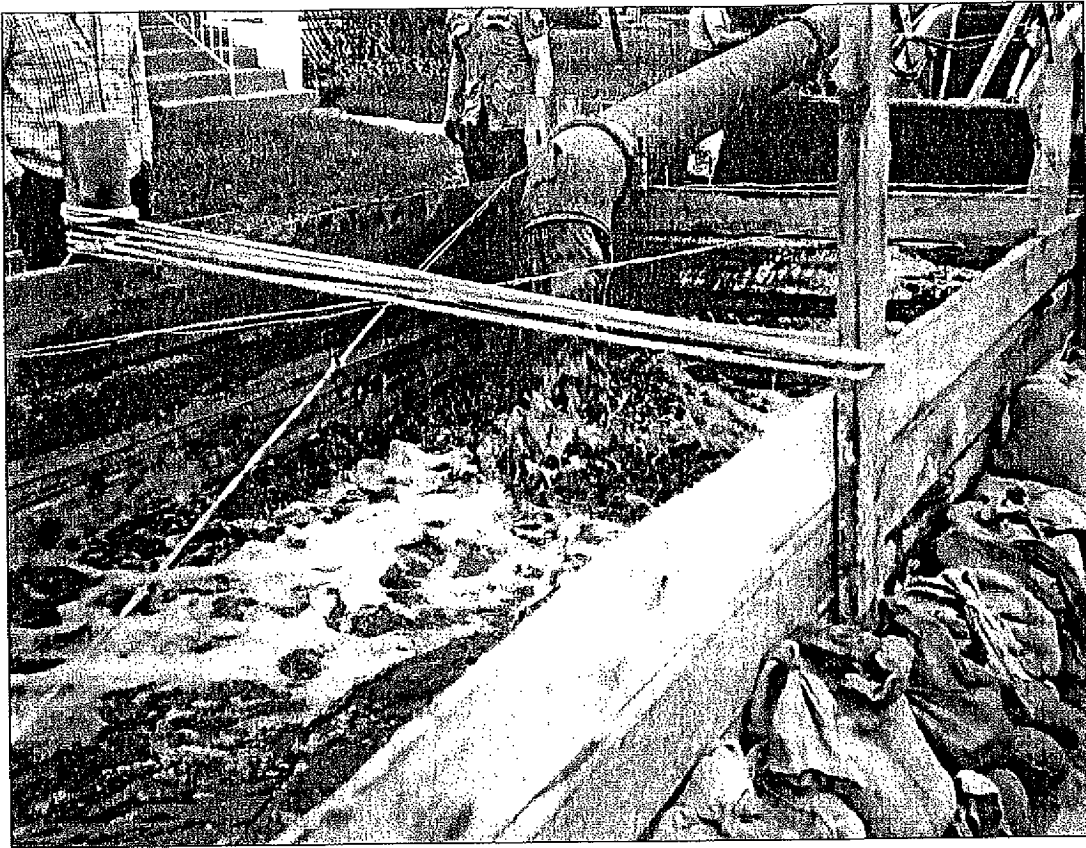


Figure 2-9 A sandbag dam to create a pond for particle settling

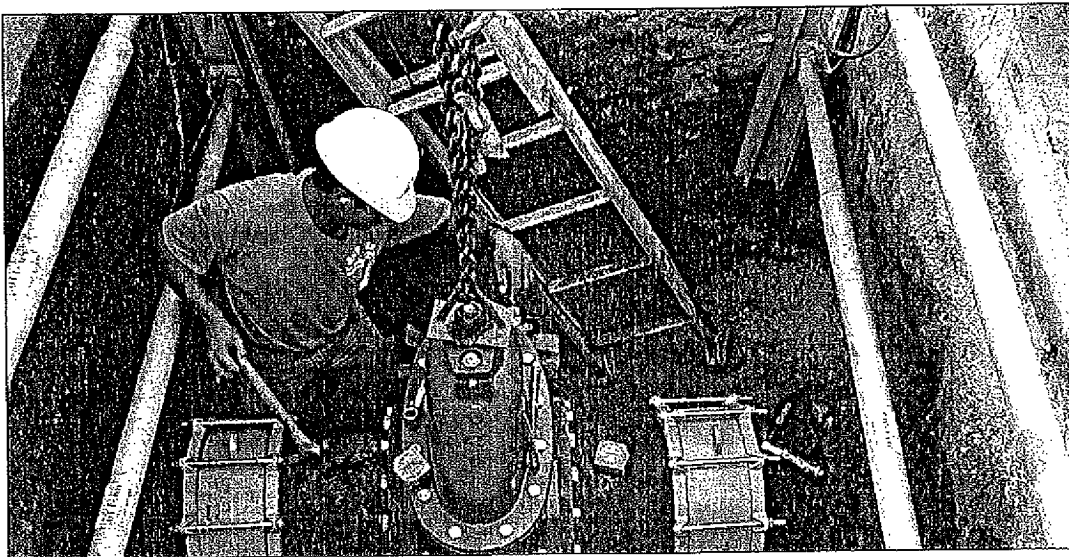


Figure 2-10 A spool piece installed at the entry and exit points for mechanical scrapers

6. Completely isolate the section to be cleaned. Close valves slowly to prevent water hammer.
7. Drain the line to be cleaned.
8. Open entry and exit points and remove spool piece sections. At the entry point, install a spool piece with the cleaning device inside. At the exit point, install discharge piping to bring discharged water up to ground level. Connect a water manifold with a throttle valve to control the rate of travel of the cleaning device.
9. Initiate the required flow into the main, and control speed with a bypass, blowoff valve.
10. Complete the cleaning operation.
11. Reclaim the cleaning device at the exit spool.
12. Repeat additional cleaning passes, as required.
13. Remove the insertion and retrieval sections, and replace permanent spool sections. Backfill and complete other necessary maintenance.
14. Flush and disinfect the line, as required. Conduct tests to determine its C factor following cleaning.
15. Return the line to service.

**Advantages.** Principal advantages of this method include

- Ability to clean long stretches of heavily deposited pipe at 2 to 10 ft/sec (0.6 to 3.0 m/sec) in a single, continuous operation
- Flexibility to negotiate standard bends (with maximum radius equal to 1½ pipe diameters) and elbows, inclined and vertical pipe sections, and to pass line-size gate valves, ball valves, tees, and corporation taps
- Ability to clean water mains with minimal excavation points
- Capability to restore water mains to C factors comparable to newly installed, unlined pipe

## CLEANING BY POWER BORING

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Power boring is a cleaning method using any hydraulically powered device capable of removing tuberculation and encrustation from cast-iron, ductile-iron, and steel pipe from 3 in. (76 mm) in diameter and above. This process is normally carried out in lengths of 400 ft (121 m) or greater. This cleaning method is described in the following paragraphs.

### Rack-Feed Boring Equipment

A rack-feed boring machine (Figure 2-11) is a compact, diesel-powered unit that uses hydraulic pressure to deliver up to 31 horsepower (23.1 kW) to a boring head. The boring head is designed to accommodate spring steel boring rods 15 ft (4.6 m) long fitted with spring-loaded quick-connects for connecting rods into suitable lengths for cleaning various lengths of pipe (Figure 2-12). The end of a boring rod assembly is fitted with a spring steel cutter blade or other cleaning tool, which rotates at 750 rpm through the pipe. (See Figure 2-13.) This cleaning process is conducted against a controlled, upstream water flow to flush loosened debris from the pipe.



## Chapter 3

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# Lining Techniques

A water utility may decide to line its distribution system pipes in response to a number of problems, such as those described in chapter 1. Lining a pipeline can eliminate the need for frequent flushing. Where leakage is a problem, linings have been installed to reduce or eliminate leaks through corroded areas of pipe or bad joints. A smooth lining in a corroding pipe helps to maximize hydraulic carrying capacity and minimize pumping costs. Additionally, some lining systems can correct structural failures, bridge breaks, and missing sections in corroded pipe, thus restoring service through a continuous pipeline.

In-place lining of water mains can be accomplished by one or more of the following general methods:

- Cement-mortar lining
- Epoxy lining
- Slip-lining
- Modified slip-lining
- Cured-in-place lining
- Structural lining
- Internal joint seals
- Pipe bursting

Internal joint seals and pipe bursting methods are discussed in chapters 4 and 5.

Refer to AWWA C651, Disinfecting Water Mains, for guidance on procedures for disinfecting pipelines before returning them to service.

## CEMENT-MORTAR LINING

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When alkaline-containing water comes in contact with iron, a chemical inhibitor against oxidation forms. Because the cement and sand in cement-mortar lining is porous, water can penetrate through the lining to the pipe wall, becoming alkaline in

the process. Consequently, pipe that is lined with cement mortar is protected from oxidation because of the composition of the portland cement.

Cement-mortar linings were first installed in existing pipelines using the centrifugal process in the mid-1930s. However, this method was limited to pipelines large enough for a person to enter. In the 1960s, remote lining processes were introduced. Today, cement mortar is applied to new ductile-iron pipes and most new steel pipes before installation, making this method a standard in the water industry.

Cement mortar is applied to the pipe wall by the rotating head of an electric or air-powered machine. The machine is placed in the pipe at 300 to 1,500 ft (92 to 458 m) intervals, depending on pipe diameter, valve locations, bends, profile, and alignment (Figures 3-1, 3-2, and 3-3). Mortar is pumped to the lining machine through high-pressure hoses or is mechanically delivered. The lining machine is equipped with rotating trowels or a conical drag trowel positioned just behind the dispensing head. As the machine moves through the pipe, it leaves a smooth, troweled (nonstructural) finish.

A reinforced cement-mortar lining may also provide structural improvement. Initially a 0.5-in. (13-mm) thick cement-mortar lining is placed on the pipe wall in the conventional manner without troweling. Using overlapping joints, a wire mesh is placed against the lining, which is then covered by another 0.5-in. (13-mm) troweled cement-mortar lining. The remaining steps in the process are the same as those for an unreinforced lining. This process is generally used to rehabilitate steel lines in poor condition due to extensive corrosion and in lines large enough for a person to enter. The reinforcing wire holds the cement mortar together, even if large holes develop in the pipeline. While this method will not necessarily prevent a blowout, it will extend the useful life of a pipeline.

## Operating Procedures

The following steps describe the common operating procedures used when lining a main with nonstructural cement mortar.

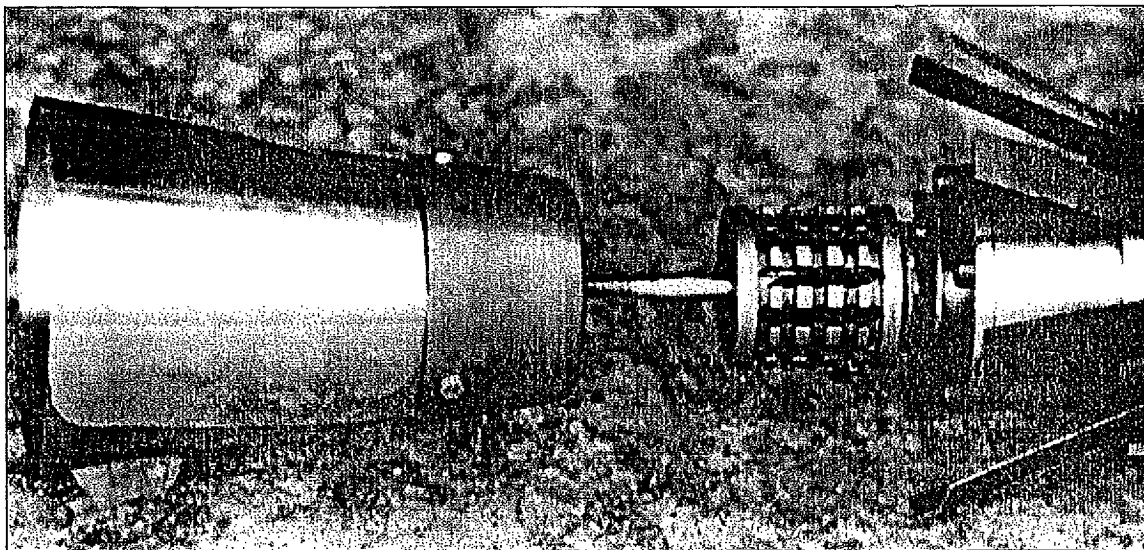


Figure 3-1 A cement-mortar lining machine for use in small-diameter pipe

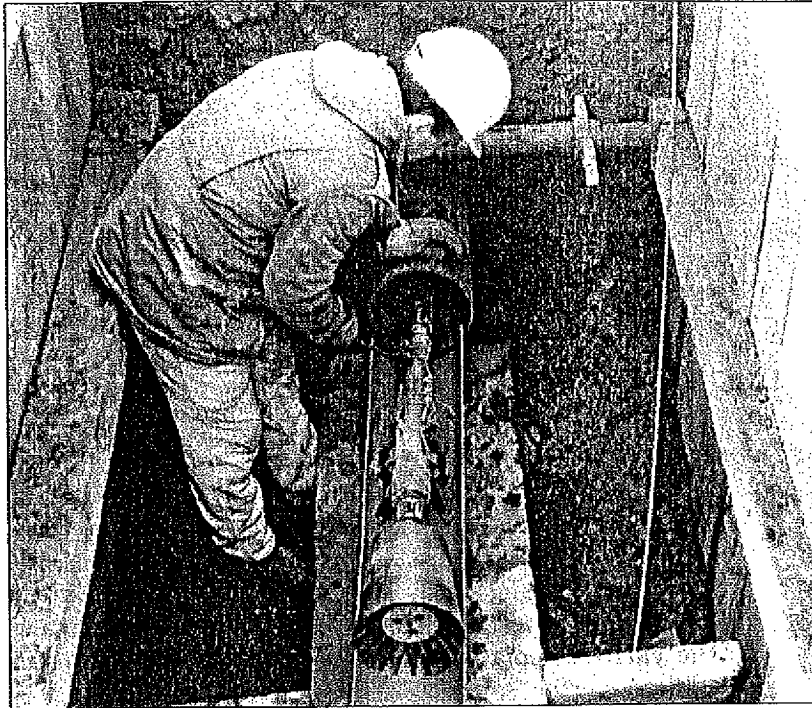


Figure 3-2 Introduction of a small lining machine

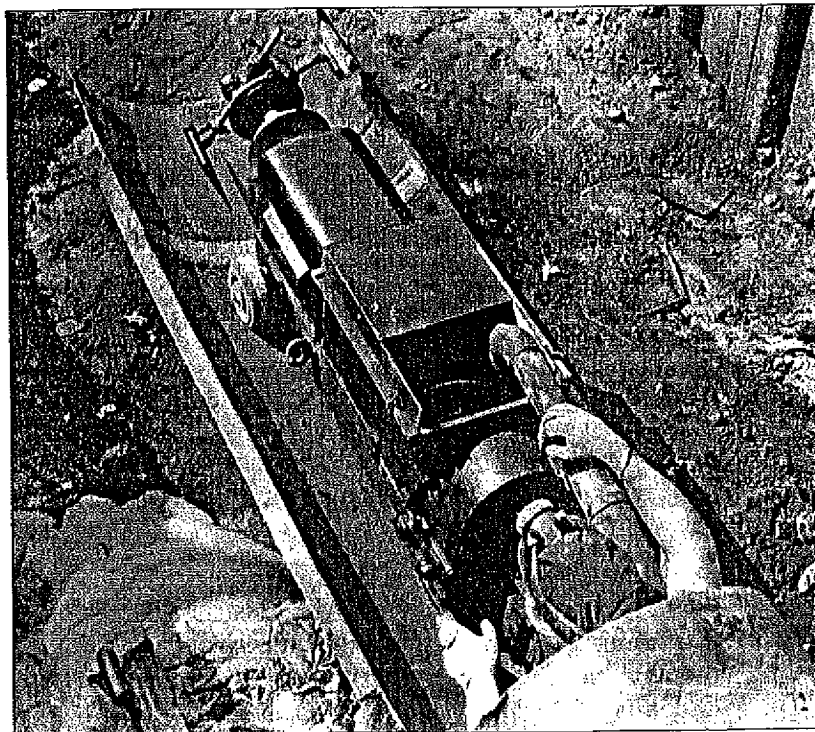


Figure 3-3 A cement-mortar lining machine for use in large-diameter pipe



1. Topography, bends, in-line valves, reduced-diameter in-line valves, and traffic conditions all influence the locations of excavations for access points to allow introduction of the lining equipment. These conditions also affect the method used to clean the pipe. All 22.5°, 45°, and 90° bends must be removed for 12-in. (300-mm) diameter pipe and smaller; 45° and 90° bends must be removed in 16-in. (400-mm) diameter pipe. Pipe 20-in. (500-mm) diameter and larger may require excavations near the bends or removal.

Full-diameter line valves must be removed and replaced, or the bonnets removed to clean the cement mortar from the interior of the valve if the pipe is too small for a person to enter. In large pipe, personnel can clean the valve interior from inside the pipe. Depending on their size, reduced-diameter or obstructed line valves may require removal or excavations on each side of the valves to allow lining.

2. The pipeline is generally dewatered by gravity and/or blowoffs, which remove most of the water. The contractor can then remove any remaining water lying in low spots with rubber squeegees pulled by winch through the pipe. At this time, inspection usually determines whether any branch valves are leaking. If a valve fails to stop water from entering the pipe to be lined, it is reexercised. If the leakage continues, a seal is installed or the valve is replaced. The pipe must be free of water when lining with cement mortar.
3. Cast-iron pipe is cut with a squeeze-type cutter, guillotine saw, handheld mechanical saw, or traveling saw, and a 4- to 5-ft (1.0- to 1.5-m) section of pipe is removed. Steel pipe is cut by torch, and a half cap is removed. Mechanical couplings are used for reconnecting cast-iron pipe, and butt straps are used to reconnect steel pipe.
4. A mixing van or concrete batch plant is located near the access hole where a cement-mortar mixture, consisting of one part silica-type sand and one part type II portland cement, is prepared. The mixed mortar is then delivered to the lining machine by one of several methods, depending on the pipe diameter.
5. In 4- to 24-in. (100- to 600-mm) diameter pipe (sometimes larger), the mortar is pumped through high-pressure hoses to the lining machine. Specially designed winches pull the lining machine through the pipe at a constant speed, ensuring a uniform lining thickness.
6. Mechanical feeding equipment shuttling between the access excavation (where the mortar is mixed) and the lining machine delivers mortar to the lining-machine hopper. The lining-machine operator then regulates the mortar application. Mechanically driven rotating trowels are used with this manually operated equipment.
7. Consumers' service lines and laterals less than 2 in. (50 mm) in diameter must be cleared after the lining application. This is done about 1 hr after the lining is completed, using compressed air to blow open the service line at the connection to the main. Laterals over 2 in. (50 mm) in diameter are not plugged by centrifugal lining and do not require excavation or blow back.
8. Water can be introduced into the line without pressure to allow curing 24 hr after completing the lining. The main can then be chlorinated, tested, and



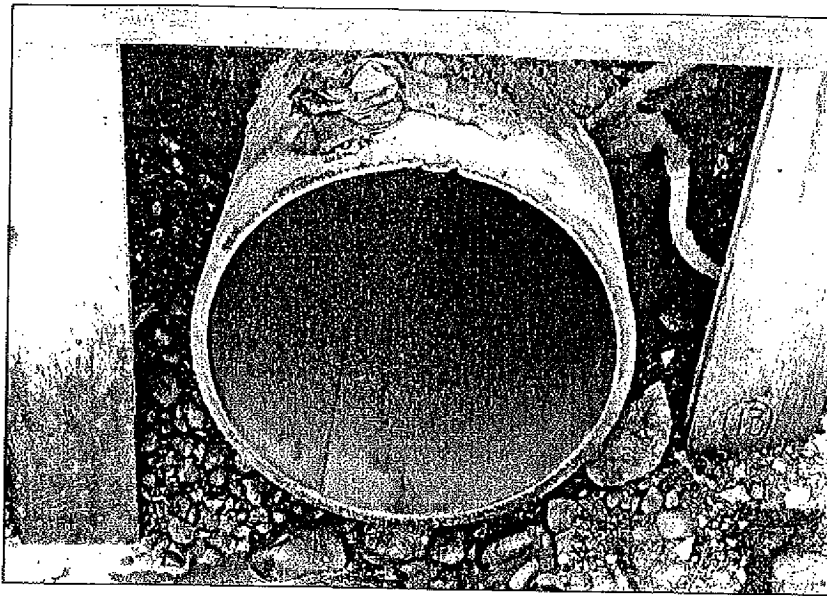


Figure 3-4 A pipe ready to be returned to service four to seven days after cement-mortar lining

returned to service. (Discharge water should be disposed of in accordance with local ordinances. Chlorine may need to be neutralized and the pH adjusted before discharge. Mains with low flow may experience high pH problems for a short time after being returned to service.) Most distribution mains are returned to service between four and seven days after lining (Figure 3-4), depending on valve locations and disinfection requirements.

9. AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place—4 in. (100 mm) and Larger, covers cement-mortar lining of pipelines from 4 in. (100 mm) to 144 in. (3,658 mm) in diameter.

American Water Works Association

**ANSI/AWWA C602-00**

(Revision of ANSI/AWWA C602-95)



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**AWWA STANDARD**  
FOR  
**CEMENT-MORTAR LINING**  
**OF WATER PIPELINES IN PLACE—**  
**4 IN. (100 mm) AND LARGER**



**Return to  
List of Standards**

*Effective date: January 1, 2001.*

*First edition approved by AWWA Board of Directors June 17, 1955.*

*This edition approved June 11, 2000.*

*Approved by American National Standards Institute October 6, 2000.*

**AMERICAN WATER WORKS ASSOCIATION**

6666 West Quincy Avenue, Denver, Colorado 80235

## AWWA Standard

This document is an American Water Works Association (AWWA) standard. It is not a specification. AWWA standards describe minimum requirements and do not contain all of the engineering and administrative information normally contained in specifications. The AWWA standards usually contain options that must be evaluated by the user of the standard. Until each optional feature is specified by the user, the product or service is not fully defined. AWWA publication of a standard does not constitute endorsement of any product or product type, nor does AWWA test, certify, or approve any product. The use of AWWA standards is entirely voluntary. AWWA standards are intended to represent a consensus of the water supply industry that the product described will provide satisfactory service. When AWWA revises or withdraws this standard, an official notice of action will be placed on the first page of the classified advertising section of *Journal AWWA*. The action becomes effective on the first day of the month following the month of *Journal AWWA* publication of the official notice.

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# Foreword

*This foreword is for information only and is not part of AWWA C602.*

## **I. Introduction.**

**I.A. Background.** Cement-mortar lining provides the interior of a ferrous-metal pipe with a smooth finish that protects it from corrosion and tuberculation. The lining can significantly retard the recurrence of these problems in previously used pipe if the pipe has been properly cleaned and repaired before application of the lining. Furthermore, the lining can increase the pipeline's carrying capacity because of the reduction in friction resulting from streamlining surface irregularities.

The use of cement mortar as a protective lining for water mains was reported by the French Academy of Science in 1836. Fourteen years later, cement-lined, coated, sheet-metal pipe was introduced in the United States. Some of the early pipelines were in use for the better part of a century, but it was not until the 1930s that a practical method was developed for lining pipe in place.

The first field trial of in-place cement-mortar lining (of pipe that had been in service) was conducted in Jersey City, N.J., in 1933. The pipe was a short section 72 in. (1,830 mm) in diameter. The favorable outcome of the trial led to the cleaning and lining of more than 27,000 ft (8,230 m) of aged, 48-in. (1,220-mm) riveted-steel pipe supplying Newark, N.J. The lining stopped all leakage and, as a result of streamlining the surface over large rivets, also increased the Hazen-Williams flow coefficient by 14 points (estimated by the engineer).

For many years, the smallest-diameter pipe that could be reconditioned by the centrifugal process was 24 in. (600 mm), because a man was required to ride the lining machine through the pipe. In 1950, a remote-control centrifugal-lining machine was introduced that made in-place lining of progressively smaller-diameter pipe possible. Presently, pipelines ranging from 4 in. (100 mm) to 28 ft (9.2 m) in diameter can be cleaned and cement-mortar lined in place.

**I.B. History.** The first American Water Works Association (AWWA) standard for cement-mortar lining of pipe in place was published in 1939 as part of AWWA C205-41 (formerly 7A-7-41), Standard for Cement-Mortar Protective Lining and Coating for Steel Water Pipe. That standard was primarily concerned with in-plant lining and coating, a completely different process from in-place lining. Therefore, in 1951, the in-place lining portion was withdrawn and expanded into a separate

standard under the direction of the late H.A. Price, who authored most of the new document. That standard, AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place—Sizes 16 In. and Larger, was approved as tentative in 1954 and made standard in 1955.

In 1962, Price suggested to the AWWA Steel Water Pipe Manufacturers Technical Advisory Committee (SWPMTAC) that AWWA C602-55 should be revised in view of the extended competence of the centrifugal-lining process, which at that time included pipe as small as 4 in. (100 mm) in diameter. The assignment was given to SWPMTAC Subcommittee 8 and resulted in the revision of the standard adopted and published in 1967.

In 1972, the standard was again considered for revision to reflect the state of the art of in-place cement-mortar lining. The more frequent use of in-place cement-mortar lining in new, large-diameter steel pipelines prompted the committee to note some of the standard procedures used in this application. This edition was approved on Jan. 25, 1976. The standard was revised in 1983, 1988, and 1995. This edition was approved on June 11, 2000.

*I.C. Acceptance.* In May 1985, the US Environmental Protection Agency (USEPA) entered into a cooperative agreement with a consortium led by NSF International (NSF) to develop voluntary third-party consensus standards and a certification program for all direct and indirect drinking water additives. Other members of the original consortium included the American Water Works Association Research Foundation (AWWARF) and the Conference of State Health and Environmental Managers (COSHEM). The American Water Works Association (AWWA) and the Association of State Drinking Water Administrators (ASDWA) joined later.

In the United States, authority to regulate products for use in, or in contact with, drinking water rests with individual states.\* Local agencies may choose to impose requirements more stringent than those required by the state. To evaluate the health effects of products and drinking water additives from such products, state and local agencies may use various references, including:

1. An advisory program formerly administered by USEPA, Office of Drinking Water, discontinued on Apr. 7, 1990.
2. Specific policies of the state or local agency.

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\*Persons in Canada, Mexico, and non-North American countries should contact the appropriate authority having jurisdiction.

3. Two standards developed under the direction of NSF: ANSI<sup>\*</sup>/NSF<sup>†</sup> 60, Drinking Water Treatment Chemicals—Health Effects, and ANSI/NSF 61, Drinking Water System Components—Health Effects.

4. Other references, including AWWA standards, *Food Chemicals Codex*, *Water Chemicals Codex*,<sup>‡</sup> and other standards considered appropriate by the state or local agency.

Various certification organizations may be involved in certifying products in accordance with ANSI/NSF 61. Individual states or local agencies have authority to accept or accredit certification organizations within their jurisdiction. Accreditation of certification organizations may vary from jurisdiction to jurisdiction.

Annex A, "Toxicology Review and Evaluation Procedures," to ANSI/NSF 61 does not stipulate a maximum allowable level (MAL) of a contaminant for substances not regulated by a USEPA final maximum contaminant level (MCL). The MALs of an unspecified list of "unregulated contaminants" are based on toxicity testing guidelines (noncarcinogens) and risk characterization methodology (carcinogens). Use of Annex A procedures may not always be identical, depending on the certifier.

AWWA C602-00 does not address additives requirements. Thus, users of this standard should consult the appropriate state or local agency having jurisdiction in order to:

1. Determine additives requirements, including applicable standards.
2. Determine the status of certifications by all parties offering to certify products for contact with, or treatment of, drinking water.
3. Determine current information on product certification.

**II. Special Issues.** This standard has no applicable information for this section.

**III. Use of This Standard.** AWWA has no responsibility for the suitability or compatibility of the provisions of this standard to any intended application by any user. Accordingly, each user of this standard is responsible for determining that the standard's provisions are suitable for and compatible with that user's application.

---

<sup>\*</sup>American National Standards Institute, 11 W. 42nd St., New York, NY 10036.

<sup>†</sup>NSF International, 789 N. Dixboro Rd., Ann Arbor, MI 48105.

<sup>‡</sup>Both publications available from National Academy of Sciences, 2102 Constitution Ave. N.W., Washington, DC 20418.

III.A. *Purchaser Options and Alternatives.* The following information should be included in the purchaser's specifications:

1. Project. Diameter, length, and location of pipeline, including plan and profile drawings when available; limits of pipeline shutdowns, if service requirements make these limits necessary; location of access manholes; location, type, and size of valves; location of interconnecting pipelines, hydrant branches, and service pipes; location of fittings and restrictions that could interfere with cleaning and lining operations; location, diameter, and connections of temporary bypass, if required; and all other details of the pipe within the scope of the contract between the purchaser and the constructor.

2. Thickness of cement-mortar lining. Nominal thickness of cement-mortar lining required (Sec. 4.4.5).

3. Services provided by purchaser. Description of all services or field operations to be performed by the purchaser, such as locating the main to be cleaned and lined; removal and replacement of line valves; operation of valves; tagging all valves that separate the main to be cleaned and lined from the water system to prevent accidental opening; shutting off all inflow of water from connecting pipelines; locating and operating blowoffs; connecting and disconnecting temporary bypasses to customer services; obtaining all permits required for the work; handling all customer contacts; disinfection; and conducting flow tests.

4. Additional work to be performed by constructor. Description of work, including repairs to deteriorated pipe; extra thickness of lining over the rivet heads and lockbar seams; excavation, backfill, and resurfacing work at access excavations; method of opening and closing access openings in the pipeline; supplying, laying, and removing temporary bypass pipe; and operation of main-line or blowoff valves.

NOTE: When it is necessary to repair deteriorated pipe before lining, the pipe will be repaired by the purchaser or under provisions of the contract between the purchaser and the constructor.

5. Water for cleaning and lining operations. Location of water sources, method of supplying, quantity available, and pressure information.

6. Disposal of cleaning water and debris. Requirements for the disposal of cleaning water, old lining, and other debris; instructions regarding permits from the responsible authorities.

7. Permissible cement-mortar materials. Preference for, or any restrictions on, type of portland cement or admixtures to be used in lining mortar.

8. Purchaser options. Options that may be included in the purchaser's specifications after reviewing the following items in the sections noted:

- a. Affidavit of compliance (Sec. 6.3).
- b. Portland cement (Sec. 4.3.1).
- c. Use of admixtures (Sec. 4.3.2, 4.4.1, and 4.4.2).
- d. Mortar lining thickness (Sec. 4.4.5).
- e. Access openings (Sec. 4.5.1).
- f. Traffic control (Sec. 4.5.1).
- g. Surface finish (Sec. 4.5.4).
- h. Cleaning of valves; new bolts and gaskets (Sec. 4.5.6.1 and 4.5.6.2).
- i. Curing by purchaser (Sec. 4.5.7.3).
- j. Temporary bypass to customers (Sec. 4.6).
- k. Disinfection of temporary bypass (Sec. 4.6.2).
- l. Leaking valves (Sec. 4.7.2).
- m. Access openings for lining for new pipe (Sec. 4.8.1).
- n. Surface finish for new pipe (Sec. 4.8.4).

III.B. *Modification to Standard.* Any modification to the provisions, definitions, or terminology in this standard must be provided in the purchaser's specifications.

**IV. Major Revisions.** The major changes made to the standard in this edition include the following:

1. The title of the standard was revised.
2. Definitions (Sec. 3) have been revised.
3. References to pozzolanic materials have been removed from Sec. 4.4.
4. Table 1 on recommended thicknesses of cement-mortar linings has been revised.
5. Sec. 5.1 has been revised for sampling and testing frequency and strength of lining.

**V. Comments.** If you have any comments or questions about this standard, please call the AWWA Volunteer and Technical Support Group, (303) 794-7711 ext. 6283, FAX (303) 795-7603, or write to the group at 6666 W. Quincy Ave., Denver, CO 80235.

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# **AWWA STANDARD FOR CEMENT-MORTAR LINING OF WATER PIPELINES IN PLACE— 4 IN. (100 mm) AND LARGER**

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## **SECTION 1: GENERAL**

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### **Sec. 1.1 Scope**

This standard describes the requirements for the materials and application of a cement-mortar lining to the inside surface of 4-in. (100-mm) and larger new and old steel, ductile-iron, and cast-iron water pipelines that have been previously installed, as well as related work. The application requirements are (1) that the lining of all straight pipe sections and long radius bends shall be performed by a machine that progresses uniformly through the pipe, applies cement mortar against the pipe surfaces, and is provided with an attachment for mechanically troweling the mortar to obtain a smooth lining of uniform thickness with smooth transitions over joints; and (2) that the lining of bends, specials, and areas adjacent to valves shall be machine sprayed and hand troweled or, where machine placement is impractical, shall be performed manually.

### **Sec. 1.2 Purpose**

The purpose of this standard is to define the minimum requirements for cement-mortar lining of water pipelines, 4 in. (100 mm) and larger, in place, including materials, design, and methods for construction.



### Sec. 1.3 Application

This standard can be referenced in specifications for cement–mortar lining of water pipelines in place, 4 in. (100 mm) and larger.

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## SECTION 2: REFERENCES

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This standard references the following documents. In their latest editions, these documents form a part of this standard to the extent specified within this standard. In any case of conflict, the requirements of this standard shall prevail.

ASTM\* C40—Standard Test Method for Organic Impurities in Fine Aggregates for Concrete.

ANSI†/ASTM C143—Standard Test Method for Slump of Hydraulic Cement Concrete.

ANSI/AWWA C500—Standard for Metal-Seated Gate Valves for Water Supply Service.

ANSI/AWWA C504—Standard for Rubber-Seated Butterfly Valves.

ANSI/AWWA C509—Standard for Resilient-Seated Gate Valves for Water Supply Service.

ASTM C150—Standard Specification for Portland Cement.

ASTM C494—Standard Specification for Chemical Admixtures for Concrete.

ASTM E11—Standard Specification for Wire Cloth and Sieves for Testing Purposes.

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## SECTION 3: DEFINITIONS

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The following definitions shall apply in this standard:

1. *Constructor*: The party that provides the work and materials for placement or installation.
2. *Purchaser*: The person, company, or organization that purchases any materials or work to be performed.

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\*American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

†American National Standards Institute, 11 W. 42nd St., New York, NY 10036.

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## SECTION 4: REQUIREMENTS

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### Sec. 4.1 Workmanship

All work shall be performed by trained personnel under the supervision of experienced persons skilled in the application of cement-mortar lining to pipelines in place.

### Sec. 4.2 Equipment

The constructor's equipment for cleaning, applying, and troweling cement-mortar in the pipe and for curing the cement-mortar lining shall be so designed and manufactured and in a condition to permit the workers to follow the procedure and obtain the results prescribed in this standard.

### Sec. 4.3 Materials for Construction

4.3.1 *Portland cement.* Portland cement shall conform to the requirements of ASTM C150 for type I or type II cement, or as otherwise specified by the purchaser.

4.3.2 *Admixtures.* To improve workability, density, and strength in the mortar, admixtures conforming to ASTM C494 may be used at the option of the constructor, unless otherwise required by the purchaser's specifications, provided that the ratio of admixture to portland cement does not exceed that used in the qualification tests of ASTM C494. No admixtures shall be used that would have a deleterious effect on potable water flowing in the pipe after the lining has been placed.

4.3.3 *Sand.* Sand shall consist of inert granular material. The grains shall be strong, durable, and uncoated. The sand shall be well graded and shall pass a No. 16 mesh screen, with not more than 5 percent passing a US Standard Sieve No. 100. (For screen and sieve sizes, refer to ASTM E11.)

4.3.3.1 *Deleterious substances in sand.* Sand shall be clean. The total combined weight of dust, clay, loam, lumps, shale, soft or flaky particles, mica, oil, alkali, and other deleterious substances shall not exceed 3 percent of the total combined weight of the deleterious substances and the sand containing them. In addition, the following limitations shall apply to specific substances:

Substance	Maximum Allowable Percentage by Weight
Shale	1
Clay lumps	1
Mica and deleterious substances other than shale and clay lumps	2

4.3.3.2 *Organic impurities.* Sand shall not show a color value darker than the "reference standard color solution" prepared as required in ASTM C40.

4.3.4 *Water.* Water for mixing mortar shall be clean and free of mud, oil, and injurious amounts of organic material or other deleterious substances. Potable water shall be used.

## **Sec. 4.4 General Cement-Mortar Lining Design**

4.4.1 *Composition.* Mortar for the lining shall be composed of cement, sand, and water that have been well mixed and are of such consistency as to produce a dense, homogeneous lining. Unless otherwise specified by the purchaser, the mortar may also include admixtures.

4.4.2 *Proportions.* The approximate proportions of cement and sand in the mortar for the lining shall be 1 part of portland cement to 1-1½ parts of sand by volume. The exact proportions shall be determined by the characteristics of the sand used. Admixtures (Sec. 4.3.2), if added, shall be used in strict compliance with the manufacturer's printed recommendations.

4.4.3 *Water content.* The water content shall be the minimum quantity that produces a workable mixture, allowing for moisture collecting on the interior of the pipe surfaces. Slump tests should be made periodically on freshly mixed mortar immediately before the mortar is conveyed to the lining machine. The tests shall be made in accordance with ANSI/ASTM C143. Nominal slumps of cement-mortar mixes for application of linings are indicated in Figures 1 and 2.

4.4.4 *Mixing.* Mortar shall be mixed long enough to obtain maximum plasticity. The mortar shall be used before initial set.

### **4.4.5 Thickness of lining.**

4.4.5.1 *General requirement.* The lining shall be uniform in thickness within the allowable tolerance, except at joints or deformations in the pipeline. Cement-mortar lining thickness shall be in accordance with Table 1, unless otherwise specified by the purchaser. If a cement-mortar lining thickness greater than ½ in. (13 mm) is required by the purchaser, the constructor shall have the option to apply the mortar lining in multiple applications. The thickness measuring device shall be agreed on by the constructor and purchaser.

4.4.5.2 *Thickness over rivets and lockbar.* The thickness of cement-mortar lining over the top of rivet heads and lockbar longitudinal seams of steel pipe shall not be less than ⅛ in. (3.2 mm), unless otherwise specified by the purchaser.

## Sec. 4.5 Methods for Construction of Rehabilitated Pipelines

4.5.1 *Access openings—general requirements.* All access openings necessary for the lining work shall be prepared and closed by the constructor, unless otherwise specified in the purchaser's specifications. Traffic control shall be as defined in the purchaser's specifications.

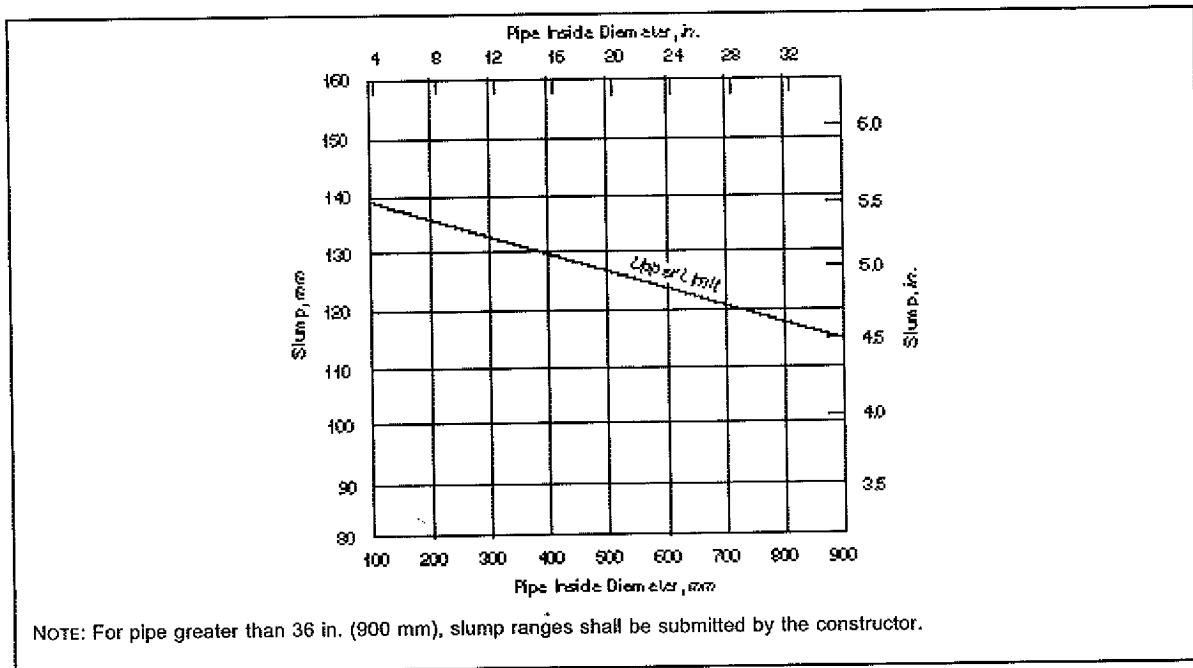


Figure 1 Nominal slumps of cement-mortar mixes for application of pipe linings using pump feed

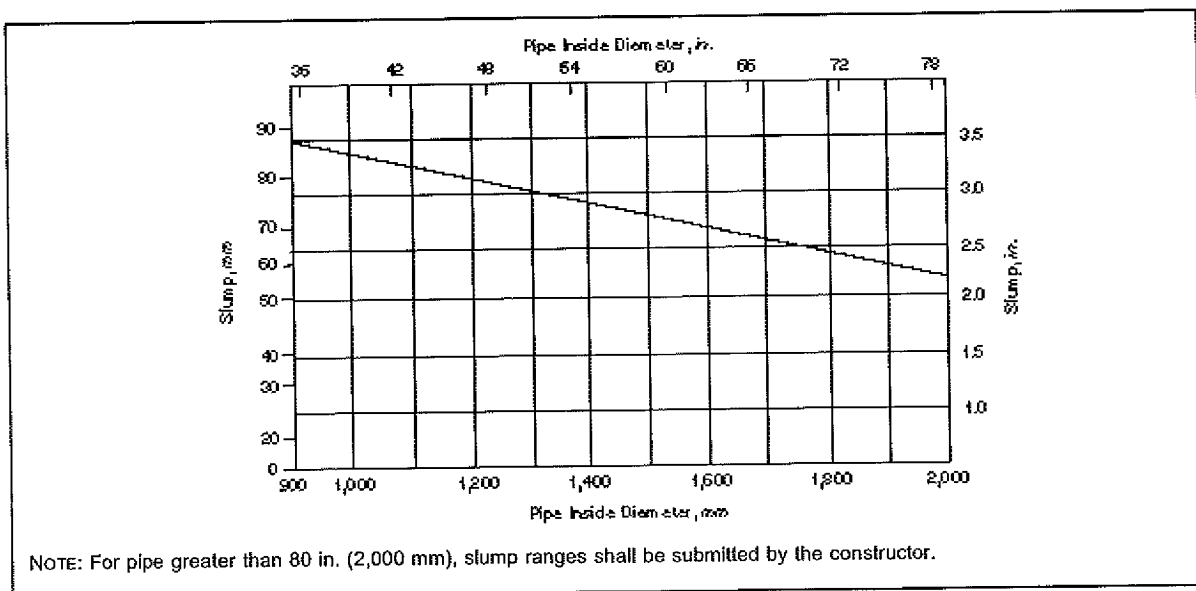


Figure 2 Slump limits of cement-mortar for application of pipe linings using mechanical feed

Table 1 Recommended thickness of cement-mortar lining for pipelines in place

Table 1. Recommended thickness of carbon steel pipe									
Pipe Diameter		Type of Pipe							
		Old Steel		Old and New Gray Cast Iron and Ductile Iron		New Steel		Tolerance	
<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>
4-10	100-250	$\frac{5}{16}$	8	$\frac{3}{16}$	4.8	$\frac{1}{4}$	6.3	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
11-23	280-580	$\frac{3}{8}$	10	$\frac{1}{4}$	6.4	$\frac{5}{16}$	8	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
24-36	600-900	$\frac{7}{16}$	11.1	$\frac{5}{16}$	8	$\frac{3}{8}$	10	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
≥36	≥900	$\frac{9}{16}$	14.3	$\frac{5}{16}$	8	$\frac{1}{2}$	13	$-\frac{1}{16}, +\frac{3}{16}$	-1.6, + 4.8

NOTE: For badly deteriorated pipe or abnormal use, the purchaser should specify a greater thickness of lining as engineering judgment indicates.

#### 4.5.2 Preparation of pipe surface.

4.5.2.1 Cleaning interior. The interior surfaces of pipe to be lined shall be cleaned by methods approved by the purchaser to remove corrosion products; chemical or other deposits; loose and deteriorated remains of old lining materials; oil; grease; and accumulations of water, dirt, and debris. When the method of cleaning the pipe does not include the use of water, laterals less than 2 in. (50 mm) in diameter shall be cleared after cleaning by backflushing with air or water wherever necessary or as required by the purchaser.

4.5.2.2 Lockbar or riveted steel pipe. The area adjacent to the lockbar or rivets shall be inspected after initial cleaning and may require cleaning by hand before lining.

#### 4.5.3 Machine application of mortar lining.

4.5.3.1 Cleanup ahead of machine. Immediately before the lining machine travels through a pipeline, all foreign material shall be removed. This includes sand and loose mortar that might have accumulated since the preparation of surfaces was completed.

4.5.3.2 Lining procedure. The lining shall be applied in one or more courses by a machine traveling through the pipe and distributing the mortar uniformly across the full section and long radius bends of the pipe. The discharge shall be from the rear of the machine so that the newly applied mortar will not be marked. The rate of travel of the machine and the rate of mortar discharge shall be mechanically regulated to produce a smooth surface and uniform thickness throughout. The mortar shall be densely packed and adhere wherever applied; there shall be no injurious rebound.

4.5.3.3 Procedure at rivets and open joints. In steel pipe 24 in. (600 mm) and larger in diameter, mortar may be applied manually ahead of the lining machine for uniform thickness over the line of rivet heads and where steel plates overlap. Open joints shall be packed with mortar before lining where necessary to provide a smooth surface across the joint. The mortared areas shall be moist and free of surface checking before proceeding with the machine lining.

4.5.4 *Surface finish.* The mortar lining in all pipe of the diameters described in this standard shall be mechanically troweled except for the places where hand troweling or the placement of an untroweled lining is expressly allowed by this standard (Sec. 4.5.4.2).

4.5.4.1 Troweled linings. The lining machine shall be provided with attachments for mechanically troweling the mortar. Both the application and troweling of the mortar shall take place at the rear of the machine so that the freshly placed and troweled mortar will not be damaged. The trowel attachment shall be such that the pressure applied to the lining will be uniform and produce a lining of uniform thickness with a smooth, finished surface, free of spiral shoulders. The finished surface of machine-placed troweled linings in pipe 24 in. (600 mm) and larger in diameter shall be examined as described in Sec. 4.5.4.1.1 and shall meet the performance criteria in Sec. 5.2.7.

4.5.4.1.1 Procedures. In the reach of pipe 24 in. (600 mm) and larger in diameter that has been lined and troweled in each day's run, 10 places shall be selected in straight sections of the pipe according to a predetermined sampling method agreed on by the purchaser and constructor. In each of the 10 places, a 12-in. (300-mm) straightedge shall be laid parallel to the axis of the pipe. In 9 of the 10 places, the space between the lined surface and the straightedge shall at no point be greater than  $\frac{1}{16}$  in. (1.6 mm) for smooth-bore pipe in good condition and  $\frac{1}{8}$  in. (3.2 mm) for pipe with a rough or irregular interior. This test shall not apply in places where the unlined pipe is too rough or irregular for the required tolerances to be met by machine lining.

4.5.4.2 Untroweled linings. The finished surface shall be smooth and regular, except that it may exhibit a slightly dimpled appearance similar to the surface of an orange. Ridges or uneven buildup caused by irregularity in the travel rate of the machine shall not be allowed.

4.5.4.2.1 Allowable untroweled lining. Untroweled cement-mortar lining is acceptable in the lining of dead-end sections, in the lining of pipe that is excessively

out of round, and in pipe 20 in. (500 mm) in diameter and smaller, when lining pipeline segments containing cocked joints, sharp bends, and angle points.

4.5.5 *Hand application of mortar lining.* Hand-placed mortar shall have a uniform surface with smooth transitions to adjacent machine-placed linings.

4.5.5.1 Allowable hand placement. In pipe 24 in. (600 mm) and larger in diameter, in places where machine placing of cement-mortar lining is impractical (such as sharp bends, specials, or areas closely adjacent to valves), lining shall be performed by hand. The purchaser may permit the correction of any defect by hand application.

4.5.5.2 Materials. Cement mortar for handwork shall be of the same materials as the mortar for machine-placed lining.

4.5.5.3 Cleaning. Areas to be lined shall be cleaned as specified in Sec. 4.5.2 and, if necessary, shall be moistened with water immediately before placing the hand-applied mortar.

4.5.5.4 Troweling. Steel finishing trowels shall be used for the hand application of cement mortar, except at bends. The outer edges of hand-troweled areas may be brushed to reduce the abutting offset.

4.5.5.5 Timing. All hand-finishing work in a section of pipeline shall be completed within 24 hr after completion of the machine application of mortar lining to that section. If necessary, application of mortar lining by machine shall be delayed or stopped to ensure compliance with this schedule.

4.5.6 *Special requirements at laterals and service connections.* Laterals and connections to the pipe that are being lined shall not be left obstructed by the lining operations.

4.5.6.1 Pipe less than 24 in. (600 mm) in diameter. After the mortar lining has been placed, but before it takes final set, laterals and services 2 in. (50 mm) and smaller in diameter shall be cleared by backflushing with air or water wherever necessary or as required by the purchaser. The backflushing shall be performed in a manner that will not damage the freshly applied lining. Unless a lateral is to be cleaned and lined, it shall not be excavated. The constructor shall clean all interior surfaces of main-line valves after the lining machine has passed. The constructor may, with the purchaser's approval, remove the bonnets and gates from main-line gate valves to accomplish the cleaning; the bonnets and gates shall then be replaced. The constructor shall, with the purchaser's approval, remove all butterfly valves from the main line when necessary and then reinstall them after the lining operation. New

bolts and gaskets for bonnet or valve replacements meeting the requirements of the applicable AWWA valve standard (ANSI/AWWA C500, ANSI/AWWA C504, or ANSI/AWWA C509) shall be supplied by the constructor, unless otherwise provided by the purchaser's specifications.

4.5.6.2 Pipe 24 in. (600 mm) and larger in diameter. Before the lining is placed, the openings in the pipeline that lead to air valves, blowoffs, manholes, and appurtenances, as well as to laterals and connections from the pipeline, shall be temporarily covered or plugged with suitable devices. These shall be removed later without damaging the cement mortar. When working inside the pipe is impractical, the constructor may clear connecting pipelines by flushing and, with the purchaser's approval, clean gate valves by removing bonnets and gates. The constructor shall, with the purchaser's approval, remove all butterfly valves from the main line when necessary. New bolts and gaskets for bonnet or valve replacement that meet the requirements of the applicable AWWA valve standard shall be supplied by the constructor, unless otherwise provided by the purchaser's specifications.

#### 4.5.7 *Curing.*

4.5.7.1 General requirements. Curing operations shall begin immediately following completion of the machine placement of the mortar lining in a section of pipeline. The section of pipe shall be closed with airtight covers over all openings and shall be maintained in a moist condition.

4.5.7.2 Curing by constructor. When a section of pipeline has been completed, the constructor shall be responsible for curing the mortar lining until the section is filled with water by the purchaser, or until the lining has been accepted by the purchaser, but in no case for more than seven days. In the event that the purchaser cannot fill the pipeline within seven days after the lining has been placed, or within the time specified by the purchaser, the constructor may be directed to extend the curing period.

4.5.7.3 Curing by purchaser. Sections of the mortar-lined pipe shall be filled with water as soon as possible after lining operations in such a manner as not to damage the lining. There shall be no pressure on any section until the mortar lining has been in place for at least 24 hr, except for pressure induced by variations in the grade of the pipeline. The filling shall be performed by the purchaser unless the purchaser's specifications stipulate otherwise.

4.5.7.4 Sprinkling exterior. The exterior surfaces of pipe exposed to sunlight shall be sprinkled with water in the daytime during the period of lining, finishing,



and curing when sprinkling is required, as determined by the constructor or the purchaser, to prevent cracking of the lining.

## **Sec. 4.6 Temporary Bypass to Customers**

4.6.1 *General description.* Temporary bypass facilities may be required to maintain service to customers connected to pipelines being cleaned and cement-mortar lined. It shall be the purchaser's responsibility to design the bypass system, including a layout of the bypass piping, customers to be serviced, the specified bypass pipe diameter to be used in specific locations, as well as the type and locations of temporary fire hydrants. When required by the purchaser, the constructor shall provide, install, maintain, and remove temporary bypass pipelines in accordance with the purchaser's specifications.

4.6.2 *Pipe and materials.* The pipe, hose, and other materials shall be supplied by the constructor for use in conjunction with temporary bypass pipe and connections to services and laterals. These materials shall withstand the pressures indicated and all other conditions of use. The pipe and fittings shall be watertight and shall be disinfected before being put into service. Disinfection shall be performed by the constructor unless the purchaser's specifications stipulate otherwise.

4.6.3 *Procedure.* Temporary bypass facilities shall include hoses and necessary outlets and fittings to each service connection. The constructor shall provide, install, and maintain the temporary bypass lines in a safe and operative condition at all times. After service has been restored to a section of water main, the constructor shall remove the temporary bypass and related facilities and shall leave the work site in a neat and orderly condition.

4.6.4 *Supply of water to feed temporary bypass.* The purchaser shall be responsible for the availability of water at sufficient pressure and in sufficient volume to supply the bypass system. The purchaser shall provide taps or other suitable feed points to which the bypass may be connected. If there are no hydrants or aboveground taps at convenient locations for bypass connection, the purchaser shall either install outlets on the system as required or direct the constructor to install the connections.

4.6.5 *Temporary connection to customers.* Before starting any work that will affect service to customers, the constructor shall notify the purchaser in advance to allow the purchaser to notify all customers accordingly. All shutoffs to customer service lines and all connections from the bypass line to the customer service lines shall be made by the constructor. If required by the purchaser, bypass service

connections requiring excavation, cutting, or tapping shall be made by the constructor unless specifically included in the purchaser's specifications. After the pipeline has been cleaned and lined, the constructor shall clear the service lines by backflushing with air or water. Where it is impossible to clear the service line because the customer's premises cannot be entered, the constructor shall excavate and clear the service at the main. The restoration of service to the customer, including disconnection from the bypass system and reconnection to the pipeline, is the constructor's responsibility unless otherwise required by the purchaser's specifications.

## **Sec. 4.7 Contingent Work**

**4.7.1 Obstructions.** Obstructions in the pipeline that prohibit the passage of cleaning or lining equipment shall be removed by the constructor. These include, but are not limited to

1. Bends, reducers, valves, or other fittings not indicated on drawings provided by the purchaser.
2. Overpoured lead joints.
3. Deformations in the pipe wall, out-of-round pipe, or defective pipe.
4. Protruding lateral or service connections.
5. Internal tie rods.
6. Successive cocked joints.

**4.7.2 Leaking valves.** The purchaser shall be responsible for preventing water from existing connections from entering the pipe before lining has been completed. The purchaser shall be responsible for the repair or replacement of leaking sideline valves as soon as discovered. The purchaser's specifications may require the constructor to do the actual work of repair or replacement, but even if not so required, the constructor shall be permitted, if the purchaser fails to act immediately, to excavate on one side or the other of the leaking valve, cut the pipe, and stop the leakage.

## **Sec. 4.8 Methods for Lining of New Steel Pipe**

**4.8.1 Access openings for lining.** The constructor may use existing manholes, flanged outlets, and pass holes for access and material feed points during the lining operations. Access openings shall be removed or replaced in accordance with purchaser's specifications. Cement-mortar lining of closures and adjacent areas shall be applied by machine or hand methods. Access to the pipeline for placing

field-applied cement-mortar lining may be obtained by one or more of the following methods:

1. Temporarily omitting short "roll-out" sections of pipe.
2. Deferring the installation of closing sections of pipe until after completion of the lining.
3. Cutting "half-cap" openings in the installed pipeline.
4. Cutting temporary feed-point manholes in the installed pipeline.

4.8.2 *Preparation of pipe surfaces.* The interior surface of the pipeline shall be cleaned before placement of cement-mortar lining. The pipe interior surface shall be free of oil, grease, and accumulations of water. Loose mill scale, dirt, rust, and construction debris shall be removed from the interior surface of the new pipeline. This may be performed by using a stiff street broom in large pipe or a drag brush in small pipe. Shot or sandblasting shall not be required.

4.8.3 *Machine application of cement-mortar lining.*

4.8.3.1 *Cleanup ahead of machine.* Immediately before the travel of the lining machine through a pipeline, all foreign material, such as sand, loose mortar, dirt, and debris shall be removed.

4.8.3.2 *Lining procedure.* The lining shall be applied in one or more courses by a machine traveling through the pipe and distributing the mortar uniformly across the full section and long radius bends of the pipe. The discharge shall be from the rear of the machine so that the newly applied mortar will not be marked. The rate of travel of the machine and the rate of mortar discharge shall be mechanically regulated to produce a smooth surface and uniform thickness throughout. The mortar shall be densely packed and adhere wherever applied; there shall be no injurious rebound.

4.8.3.3 *Procedure at joints.* Joints shall be packed with mortar before lining where necessary to provide a smooth surface across the joint. These mortared areas shall be moist and free of surface checking before proceeding with the machine lining over the joint area.

4.8.4 *Surface finish.* The mortar lining in all pipe of the diameters described in this standard shall be mechanically troweled except for the places where hand troweling or the placement of an untroweled lining is expressly allowed by this standard. (Sec. 4.8.4.2.1).

4.8.4.1 *Troweled linings.* The lining machine shall be provided with attachments for mechanically troweling the mortar. Both the application and troweling of

the mortar shall take place at the rear of the machine so that the freshly placed and troweled mortar will not be damaged. The trowel attachment shall be such that the pressure applied to the lining will be uniform and produce a lining of uniform thickness with a smooth, finished surface, free of spiral shoulders. The finished surface of machine-placed troweled lining in pipe 24 in. (600 mm) and larger in diameter shall be examined as described in Sec. 4.5.4.1.1 and shall meet the performance criteria in Sec. 5.2.7.

4.8.4.2 Untroweled linings. The finished surface shall be smooth and regular except that it may exhibit a slightly dimpled appearance similar to the surface of an orange. Ridges or uneven buildup caused by irregularity in the travel rate of the machine shall not be allowed.

4.8.4.2.1 Untroweled lining may be allowed in sections of a pipeline where the pipe to be lined is excessively out of round.

4.8.5 *Hand application of cement-mortar lining.* Hand-placed mortar shall have a uniform surface with smooth transitions to adjacent machine-placed lining.

4.8.5.1 Allowable hand placement. In pipe 24 in. (600 mm) and larger in diameter, in places where machine placing of cement-mortar lining is impractical, (such as sharp bends, specials, or areas closely adjacent to valves), lining shall be performed by hand.

4.8.5.2 Materials. Cement mortar for handwork shall be of the same materials as the mortar for machine-placed lining.

4.8.5.3 Cleaning. Areas to be lined shall be cleaned as specified in Sec. 4.8.2 and, if necessary, shall be moistened with water immediately before placing the hand-applied mortar.

4.8.5.4 Troweling. Steel finishing trowels shall be used for the hand application of cement mortar, except at bends. The outer edges of hand-troweled areas may be brushed to reduce the abutting offset.

4.8.5.5 Timing. All hand-finishing work in a section of pipeline shall be completed within 24 hr after completion of the machine application of mortar lining to that section. If necessary, application of mortar lining by machine shall be delayed or stopped to ensure compliance with this schedule.

4.8.6 *Special requirements at openings.* Laterals and connections to the pipe being lined shall not be left obstructed by the lining operations. Openings in the pipeline for manholes, outlets, and blowoffs shall be temporarily closed and covered with removable coverings or other suitable devices to prevent the intrusion of the

cement mortar into the openings. On completion of the lining, the constructor shall remove all of these covers and shall repair any lining damaged in the process.

#### 4.8.7 *Curing.*

4.8.7.1 General requirements. Curing operations shall begin immediately following completion of the machine placement of the cement-mortar lining in a section of pipeline. The section of pipe shall be closed with airtight covers over all openings, and the lining shall be maintained in a moist condition. The pipeline shall remain closed and the moist atmosphere maintained until the pipeline is filled.

4.8.7.2 Curing by constructor. When a section of pipeline has been completed, the constructor shall be responsible for careful curing of the cement-mortar lining until the section is filled with water by the purchaser, or until the lining has been accepted by the purchaser, but in no case for more than seven days. In the event that the purchaser cannot fill the pipeline within seven days after the lining has been placed, or within the time specified by the purchaser, the purchaser may direct the constructor to extend the curing period.

4.8.7.3 Curing by purchaser. Sections of the mortar-lined pipe shall be filled with water as soon as possible after lining operations in such a manner as not to damage the lining. There shall be no pressure on any section until the mortar lining has been in place for at least 24 hr, except for pressure induced by variations in the grade of the pipeline. The filling should be performed by the purchaser, unless the purchaser's specifications stipulate otherwise.

4.8.7.4 Sprinkling exterior. The exterior surfaces of pipe exposed to sunlight shall be sprinkled with water and kept moist in the daytime during the period of lining, finishing, and curing when sprinkling is required, as determined by the constructor or the purchaser, to prevent cracking of the lining.

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## SECTION 5: VERIFICATION

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### Sec. 5.1 Inspection

All materials provided and work performed will be subject to inspection. The constructor shall provide, without additional cost to the purchaser, samples and reasonable assistance for the inspection of materials and workmanship.

5.1.1 *Sampling and testing frequency.* A set of at least two standard test cylinders shall be made each day from the cement-mortar lining for each shift to

satisfy the quality control requirements of Sec. 5.1.2. Additional cement–mortar testing shall be defined in the purchaser’s specifications.

5.1.2 *Strength of cement–mortar lining.* Cement–mortar test cylinders shall attain a minimum compressive strength of 4,500 psi (31 MPa) in 28 days. Pipe with cement–mortar lining that does not meet the strength requirements described in this standard shall be subject to rejection.

## **Sec. 5.2 Inspection of Rehabilitated Pipelines**

5.2.1 *Responsibility of purchaser and constructor.* The entire procedure for applying cement–mortar lining may be subject to continuous inspection by the purchaser, but the inspection shall not relieve the constructor of the responsibility to provide material and perform work in accordance with this standard.

5.2.2 *All phases accessible to purchaser.* The purchaser shall have free access to all areas, places, or facilities concerned with the providing of material or the performance of work according to the provisions of this standard.

5.2.3 *Constructor to assist purchaser.* The constructor shall provide the purchaser reasonable assistance, without additional charge, in performing inspection duties and, specifically, in obtaining information concerning the material used and the progress of the work.

5.2.4 *Pipe inspection procedures.* The purchaser may inspect the pipeline following the application of the cement–mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with this standard.

5.2.4.1 *Small-pipe inspection procedure.* The inspection of the lining in pipe that is too small for a person to enter, less than 24-in. (600-mm) inside diameter (ID), may be made by television or from both ends of the lined pipe segment by using strong lights or mirrors. The purchaser may determine the quality of the lining from this visual inspection. Where practical, on pipelines that are less than 24-in. (600-mm) ID, the lining may be inspected by the purchaser before the lining has attained its initial set. (It is not practical to remove defective cement–mortar lining that has reached its initial set.)

5.2.4.2 *Large-pipe inspection procedure.* In pipe 24-in. (600-mm) ID and larger, a manual, visual inspection of the lined pipe interior may be made by the purchaser to determine the quality of the lining and to identify defective areas in the lining for repair. Physical inspection shall adhere to appropriate safety precautions for confined spaces.

5.2.5 *Defective lining.* Defects in cement–mortar lining include, but are not limited to, sand pockets, voids, oversanded areas, excessively cracked and drummy areas, areas of lining thinner than specified, and areas of unsatisfactory surface finish.

5.2.6 *Repair of defective lining.*

5.2.6.1 Pipe less than 24-in. (600-mm) ID. In pipe less than 24-in. (600-mm) ID, the defective lining shall be removed in total from the pipe segment before the lining has reached its initial set. The pipe segment shall then be relined in full compliance with project specifications. Defective lining rejected after initial set shall be repaired by the most practical method as determined by the purchaser, in consultation with the constructor.

5.2.6.2 Pipe 24-in. (600-mm) ID and larger. In pipe 24-in. (600-mm) ID and larger, defects in lining shall be repaired. Small defective areas shall be repaired by manual removal of the defective lining and reapplication of cement–mortar lining. Defective areas encompassing the full diameter of the pipe shall be replaced by machine wherever practical.

5.2.7 *Guarantee and performance criteria.*

5.2.7.1 Guarantee. If an examination by the purchaser of the cement–mortar lining work within a period of one year after final completion and acceptance of the work reveals evidence of defective materials or workmanship as defined in this standard, then the purchaser shall act according to the remedies in Sec. 5.2.6 of this standard. The constructor shall bear the expense and perform the repair of defective work in a manner acceptable to the purchaser.

5.2.7.2 Performance criterion—surface finish. The Hazen–Williams  $C$  factor ( $C_{hw}$ ) is a generally accepted criterion for determining the acceptability of surface finish of cement–mortar lining and restoration of carrying capacity in rehabilitated pipelines. Table 2 and Sec. 5.2.7.1 are given as a guarantee for acceptable performance in smooth-bore pipe.

## Sec. 5.3 Inspection of New Steel Pipe

5.3.1 *Responsibility of purchaser and constructor.* The entire procedure of applying cement–mortar lining may be subject to continuous inspection by the purchaser, but this inspection shall not relieve the constructor of responsibility to provide material and perform work in accordance with this standard.

Table 2 Acceptable performance for smooth-bore pipe

Pipe Inside Diameter		Guaranteed
<i>in.</i>	( <i>mm</i> )	$C_{hw}$ Factor*
4	(100)	90
6	(150)	100
8	(200)	110
10	(250)	115
12	(300)	120
14–20	(300–350)	125
>20	(>500)	130

\*Based on nominal inside of pipe diameter before cement–mortar lining. The purchaser may specify that flow tests be conducted by an independent testing firm, by the constructor, or by the purchaser. The purchaser may establish liquidated damages to be assessed against the constructor when the lined pipe does not achieve the guaranteed  $C_{hw}$  factor.

5.3.2 *All phases accessible to purchaser.* The purchaser shall have free access to all areas, places, or facilities concerned with the providing of material or the performance of work according to the provisions of this standard.

5.3.3 *Constructor to assist purchaser.* The constructor shall provide the purchaser reasonable assistance, in performing the inspection duties and specifically in obtaining information concerning the material used and the progress of the work.

5.3.4 *Pipe inspection procedures.* The purchaser may inspect the pipeline following the application of the cement–mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with this standard.

5.3.4.1 *Small-pipe inspection procedure.* The inspection of lining in pipe that is too small for a person to enter, less than 24-in. (600-mm) ID, may be made by television or from both ends of the lined pipe segment by using strong lights or mirrors. The purchaser may determine the quality of the lining from this visual inspection. Where practical, on pipelines that are less than 24-in. (600-mm) ID, the lining may be inspected by the purchaser before the lining has attained its initial set.

5.3.4.2 *Large-pipe inspection procedure.* In pipe 24-in. (600-mm) ID and larger, a manual, visual inspection of the lined pipe interior may be made by the purchaser to determine the quality of the lining and to identify defective areas in the lining for repair. Physical inspection shall adhere to appropriate safety precautions for confined space.

5.3.5 *Defective lining.* Defects in cement–mortar lining include, but are not limited to, sand pockets, voids, oversanded areas, excessively cracked and drummy



areas, areas of lining thinner than specified, and areas of unsatisfactory surface finish.

#### 5.3.6 *Repair of defective lining.*

5.3.6.1 Pipe less than 24-in. (600-mm) ID. In pipe less than 24-in. (600-mm) ID, the defective lining should be removed in total from the pipe segment before the lining has reached its initial set. The pipe segment shall then be relined in full compliance with project specifications. Defective lining rejected after initial set shall be repaired by the most practical method as determined by the purchaser, in consultation with the constructor.

5.3.6.2 Pipe 24-in. (600-mm) ID and larger. In pipe 24-in. (600-mm) ID and larger, defects in lining shall be repaired. Small defective areas shall be repaired by manual removal of the defective lining and by reapplication of mortar lining. Defective areas encompassing the full diameter of the pipe shall be replaced by machine wherever practical.

5.3.6.2.1 Lining cracks. Temperature and shrinkage cracks in the mortar lining less than  $\frac{1}{16}$  in. (1.6 mm) in width need not be repaired. Cracks wider than  $\frac{1}{16}$  in. (1.6 mm) need not be repaired if it can be demonstrated to the satisfaction of the purchaser that the cracks will heal autogenously under continuous soaking in water. The autogenous healing process may be demonstrated by any procedure that keeps the lining of the pipe continually wet or moist.

5.3.7 *Protection of lining.* Every precaution shall be taken to prevent injury to the lining. Should the constructor damage the lining at any time before completion of the contract, the damage shall be repaired conforming to the requirements of this standard.

#### 5.3.8 *Guarantee and performance criteria.*

5.3.8.1 Guarantee. If an examination by the purchaser of the cement-mortar lining work within a period of one year after final completion and acceptance of the contract work reveals evidence of defective materials or workmanship as defined in this standard, then the purchaser shall act according to the remedies in Sec. 5.3.6 of this standard. The constructor shall perform the repair of defective work in a manner acceptable to the purchaser.

5.3.8.2 Performance criterion—surface finish. The Hazen-Williams  $C$  factor ( $C_{hw}$ ) is a generally accepted criterion for determining the acceptability of surface finish of cement-mortar lining in pipelines. (Table 2 and Sec. 5.3.8.1 are given as guarantees to acceptable performance in smooth-bore pipe.)

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## SECTION 6: DELIVERY

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### **Sec. 6.1 Marking**

This standard has no applicable information for this section.

### **Sec. 6.2 Shipping**

This standard has no applicable information for this section.

### **Sec. 6.3 Affidavit of Compliance**

The purchaser may require the constructor to provide an affidavit of compliance or material test reports stating that the materials used were in compliance with the requirements of this standard. The affidavit shall be signed by the constructor.

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# **History and Development Of Water Main Rehabilitation by In-situ Cement Mortar Lining Technology**

**Joseph Dioslaki**

**Jiangwei Deng**

**Abstract:** The article expatiates on history, development, and technical advantage of Trench-less In-Place Cement Mortar Lining technology, which has been widely accepted for water main rehabilitation in USA.

**Key words:** Trench-less, In-Place Cement Mortar Lining, Water Main Rehabilitation, Technical advantage

Rehabilitation of water mains by trenchless technology methods are widely accepted in the United States. In place rehabilitation of water mains are generally accomplished by the following methods:

- Cement Mortar lining
- Epoxy Lining
- Slip-lining
- Cure-in-place
- Pipe Bursting

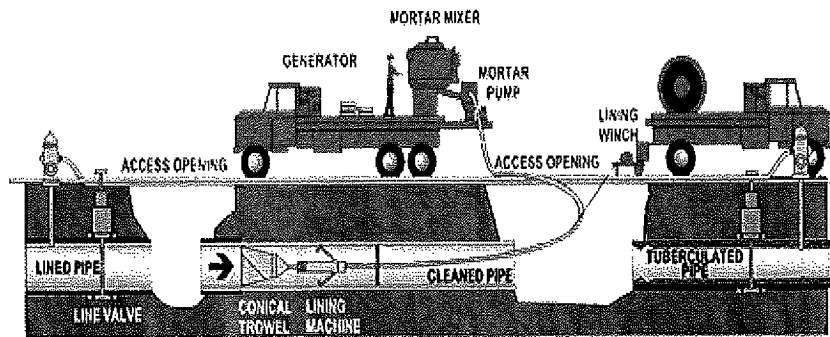
This article will address Cement Mortar Lining technology, the most widely accepted and used technology for the rehabilitation of water mains in the United States of America. The unique benefits of this method have been undiscovered in many communities throughout the world since very few introductions of this process have been made in recent times.

## **In Place Cement Mortar Lining Operating Procedures**

The following steps briefly describe the basic operating procedures:

1. Install Bypass
2. Excavate Access Pits
3. Clean Pipe
4. Apply Mortar
5. Clear Services
6. Cure Mortar

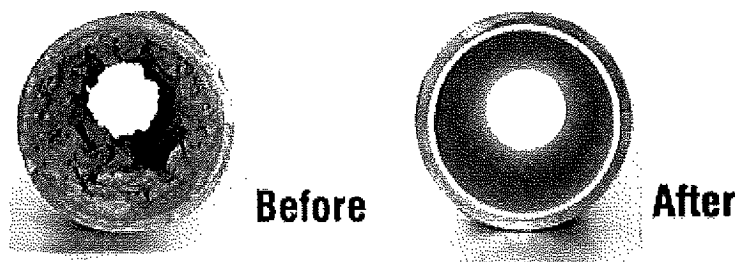
7. Pressure Test Pipe
8. Disinfect Pipe
9. Tie In To Existing System
10. Remove Bypass and Connect Services



In Place Cement Mortar Lining Operating Procedures

### History and Development of Cement Mortar Lining in USA

In the United States of America between 300 and 400 miles (between 482 and 643 km.) of water main are rehabilitated with the **In-Place Cement Mortar Lining Process** each year. This process is the most widely accepted and used technology for the rehabilitation of water mains in existence. Through the early 2000's it is estimated that over 7,000 miles (11,265 km.) of water main, ranging in diameter from 3 inches to 336 inches (7.6 cm. to 850 cm.), have been rehabilitated throughout the world by this in-place cement mortar lining process. The use of this process far exceeds the combined use of all other rehabilitation methods in existence today. The reasons for this wide acceptance are numerous. Below follows a brief history detailing cement mortar lining's evolution and growth.



Watermain Rehabilitated Before and After

The use of cement mortar as a protective lining for water mains was first reported by the French Academy of Science in 1836. By 1850, cement-lined hand coated riveted steel pipe was introduced in the United States. In the early 1930's a practical method was developed to line pipes using cement mortar by leaving the pipe intact and "in-place". This prompted the first field trial of in-place cement-mortar lining performed in Jersey City, New Jersey on a short section of 72 inch (1,830 mm) diameter steel pipe. The

success of this trial was the prelude to the 1934 cleaning and lining of 27,551 feet (8,397 m) of aged, 48 inch (1,220 mm) riveted-steel pipe supplying Newark, New Jersey. The cement mortar lining increased the Hazen-Williams<sup>1</sup> flow coefficient (from 70 to 124) to exceed its original capacity by covering over rivets and seams creating a smoother contoured pipeline, lessening disturbances in the flow stream. The cement lining also stopped all leakage that previously was occurring at seams and rivets. In 2002 this pipeline was opened, and the cement lining was observed to be in good condition.

In 1939 American Water Works Association (AWWA) published the standard for factory application of cement mortar lining to new pipe<sup>2</sup>. This standard was titled, Standard for Cement Mortar Protective Lining and Coating for Steel Water Pipe. Due to technology limitations, until 1950 the smallest diameter pipe that could be rehabilitated in-place was 24 inch (600 mm) because man entry was required to control the lining machine within the pipe. In 1950, a small diameter centrifugal lining machine that did not require man entry was developed, allowing the in-place lining of smaller diameter pipelines. As a result, in 1955 the in-place lining standard titled, AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place, Sizes 16 In. and Larger was published. By 1962 in-place cement mortar lining included pipe as small as 4 inches (100 mm) in diameter. The most recent update of this AWWA standard is dated 2000. Today technology permits in-place cement mortar lining of pipelines ranging in diameter from 3 inches (75 mm) to 28 feet (9.2m).

Beginning in the mid 1950's, a phased program by the AWWA required larger diameter water mains to be installed with an internal cement mortar lining to prevent internal corrosion and tuberculation. This requirement was the catalyst for the factory applied cement mortar lining that coats internal surfaces of new steel and ductile iron water mains being installed today. By 1965 the AWWA completed the phasing program and *required that all new steel and cast iron water mains be installed with an internal cement mortar lining*. It is clear that the benefits of cement mortar lining were understood. Since the water distribution grids in major cities throughout the United States were already mature before this date, water distributors began to notice flow reductions and discolored water due to iron oxidation and the internal buildup of corrosion. Flow reduction on the larger diameter water mains significantly affected pumping costs, while flow reductions on the smaller diameter mains alarmingly reduced flows available at fire hydrants. It quickly became evident that rehabilitation or replacement were the only options and that in-place cement mortar lining was determined to be the most economical and practical solution.

Programs were instituted to rehabilitate entire city distribution systems in a methodical fashion, starting with large diameter trunk mains, and then continuing with smaller diameter distribution grids. By 2004, some cities such as Los Angeles, California and Louisville, Kentucky had nearly completed their rehabilitation programs, while some cities such as Baltimore, Maryland and Boston, Massachusetts were in the midst of their programs. Yet other cities such as Columbia, South Carolina and Nashville, Tennessee were just beginning their rehabilitation programs.

Today, in-place cement mortar lining of cast iron and steel water mains ranging in size from 3 inches (75mm) to 28 feet (9.2m) in diameter are common practice for the economical rehabilitation of water mains in most major cities throughout the United States. These rehabilitation programs are ongoing. Water distribution agencies familiar with the cement mortar lining process maximize the use of in-place cement mortar lining since it is the most economical rehabilitation technique available. Included among them are:

• Baltimore, Maryland	• Jersey City, New Jersey
• Altoona, Pennsylvania	• Monroe County, New York
• Columbia, South Carolina	• Cleveland, Ohio
• Cincinnati, Ohio	• Los Angeles, California
• Denver, Colorado	• Boston, Massachusetts
• Louisville, Kentucky	• Nashville, Tennessee
• Chicago, Illinois	• Washington Suburban San. Com.
• New Jersey American Water Co.	• Aqua Pennsylvania

These cities and water authorities are just a few of the agencies throughout the country that have ongoing cement mortar lining rehabilitation programs. This process is the most widely accepted and used technology for the rehabilitation of water mains in existence. The cement mortar lining rehabilitation programs throughout the United States have been found to effectively double the useful service life of cast iron, ductile iron, and steel water mains, at 30 to 50 percent of replacement costs.

### **The Unique Technical Properties of In Place Cement Mortar Lining**

The application of cement mortar lining to the interior of ferrous-metal water pipelines (steel, cast iron, ductile iron) provides a smooth protective finish that indefinitely protects against internal corrosion and tuberculation. As such, the lining also prevents the recurrence of internal corrosion and tuberculation in aged water pipelines provided that proper cleaning is performed in preparation for the lining application. The lining increases pipe carrying capacities by reducing friction caused by internal surface irregularities. As a result, water distributors benefit by maximizing hydraulic carrying capacities, minimize pumping costs, preventing customer complaints of discolored water, and economically doubling pipe service life expectancies by up to 75 years.

### **Corrosion Prevention and Hydraulic performance of Cement Mortar Lining**

Cement mortar linings are unique, in that they are porous structures. Corrosion protection is achieved by the development of a highly alkaline environment within the pores. This environment is a result of the production of calcium hydroxide during cement hydration. Cement Mortar Lining (CML) is a positive way to prevent corrosion on the interior surface of cast iron pipe once and for all. The CML maintains an alkali surface on the cast iron (or ductile iron) pipe that effectively prevents corrosion for as long as the lining remains in the pipeline. This is much better than "barrier to corrosion" or a coating

system that works as a barrier and tries to prevent corrosion by keeping moisture from coming into contact with the pipe.

In addition to the water quality improvement, cement mortar lining can greatly increase the hydraulic performance of the water main. Pipeline's Hazen-Williams C factor could achieve 130~140 after being rehabilitated by cement mortar lining, which is approximately equal to new HDPE and FRP pipe (C factor is about 140). But CML typically costs less than 50% of replacement costs, and has a life span in excess of 75 years. (as the diameter increases, the proportion of savings also increases dramatically).

The difference between In-Place CML and Factory CML by way of quality

In place CML is superior to factory CML because it is made typically with a one to one ratio of silica sand to Portland cement which provides a very durable lining with compressive strengths in excess of 7,500psi while factory linings are typically a three to one ratio. Further, in-place linings are under optimum curing conditions since water is typically introduced into the main about one day after the lining is applied. Further still, the in-place lining is applied centrifugally as opposed to the factory lining in which the pipe is spun so the factory process allows segregation of the cement mortar materials. As a result, the original mixing proportion (cement/sand ratio 1:2) changes, based on the concentration of CaO, the mixing proportion ranges from 3:1 (water side) to 1:3.7 (pipe wall side). The in situ lining develops no separation of grain sizes. The cross section produces a constant mixture of 1:1 as applied.

According to studies performed in Dortmund of Germany from 1972 to 1980, factory lined pipe tended to form a brittle layer on the surface of the factory lining after only three years of service. On the other hand, in-place cement mortar linings were found all to be in good condition even after 18 years of operation.

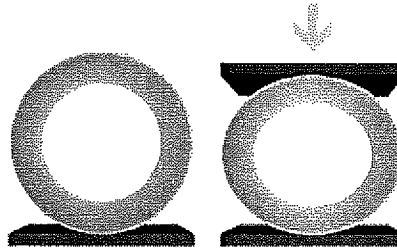
Structural performance of Cement Mortar Lining

CML itself is structural to a point. This was demonstrated in the Detroit Test which proved that a layer of less than ¼ inch CML is not as weak as thought. For a fully structural replacement that can withstand load forces and internal pressures Reinforced CML can be used on water mains 30" diameter and larger.

In 1950s, the ability of a cement-mortar lining to remain in place during deflection of the pipe was demonstrated in a deflection test conducted on a 72" (1,828.80 mm) diameter welded steel pipe section with a 5/16" (7.94 mm) wall thickness. A 1/4" (6.35 mm) cement-mortar lining was centrifugally applied and allowed to cure properly. During the following 16-month period, the lining was thoroughly dried out and the pipe was subjected to shock and vibration tests to demonstrate the integrity of the lining. At the end of this period, various loads were placed on top of the section until eventually a load section of 13" (330.20 mm) on the vertical axis was reached. Although hairline cracks appeared during the deflection, no impairment to the lining was observed either during the test or afterward when the load was removed.



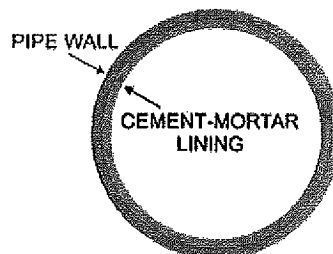
#### DURABILITY OF CEMENT-MORTAR LINING



Deflection Test of Cement Mortar Lining

A cement-mortar lining offers high compressive strength, creating an "arch action" which holds the lining in tight contact with the pipe wall. This is a major advantage over linings which rely on bond or adhesive strength to hold them in place. Cement mortar linings, while having substantial adhesion or bond, do not depend on bond to remain in place. A cement lining of proper thickness acts as a compression ring within a tension ring. It is a continuous arch which, being confined by the pipe, has no place to go. Deflection in a pipe merely increases the perimeter of the cement lining with respect to the pipe wall perimeter and thereby pushes the lining tighter against the wall of the pipe and resists the forces causing the deflection.

#### DIAGRAM OF ARCH ACTION INHERENT IN CEMENT-MORTAR LININGS



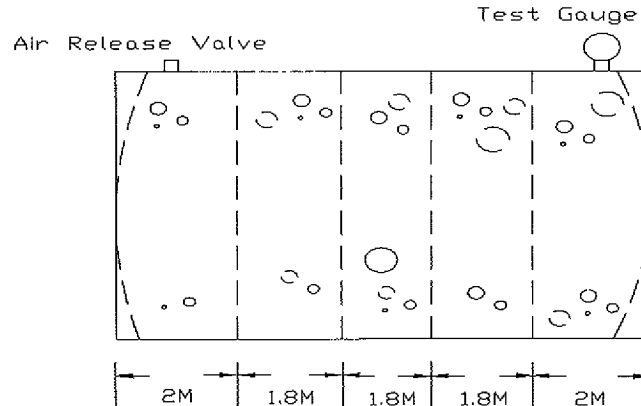
CEMENT LININGS:  
A CONTINUOUS RING,  
CONTAINED BY THE PIPE WALL

#### Ability of Cement Mortar Lining to prevent pipeline leakage

In Akron, Ohio, troubles had been experienced for some years from electrolytic action on the exterior of the city's 22 miles of parallel 36in and 48 in steel force mains. Leaks apparently resulting from corrosion started by electrolysis, continues to develop in both conduits. Investigation revealed that these leaks were caused by holes about  $\frac{1}{4}$ " in diameter, originating on the outside surface of the pipe. Resorting to tests which would simulate these actual conditions and using a comparable cement mortar lining  $\frac{1}{4}$  in thick, the engineers established to their satisfaction that holes not only of  $\frac{1}{4}$  in size, but up to and including 1  $\frac{1}{4}$  in could be spanned safely by this unsupported cement mortar lining and the leakage stopped even under water pressures of 200psi. though some "weeping"

was observable after passing 40lb. pressure in the tests, it completely stopped after 72 hours under test conditions.

Proof that Cement Mortar Lining prevents pipe leakage



Tests show that cement mortar lining prevents pipeline leakage and  
Is capable of bridging a hole over 6in diameter to withhold 305psi

In 1940 the city of Detroit, Michigan, conducted a pressure test on a length of 48" diameter x  $\frac{1}{2}$ " wall riveted steel pipe. The section to be tested was perforated with numerous holes from 1" to 6  $\frac{1}{4}$ " in diameter. Cement mortar lining was then applied to the inside of the pipe, the thickness of the lining graduating from  $\frac{1}{4}$ " at one end of the pipe to 1" at the other. After an adequate curing period, a prescribed hydraulic testing procedure was followed to determine the pressures at which failure might occur in the cement mortar lining. The large hole, 6  $\frac{1}{4}$ " in diameter, blew out at a pressure of 305psi, with a deflection before rupture of 0.05 inches. The thickness of the lining at this particular hole was  $\frac{5}{8}$ ". From this test it is concluded that cement mortar lining properly applied, provides positive protection against leakage under normal operating pressures.

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**From:** Stoken, Laura (GOV)  
**Sent:** Friday, January 29, 2016 3:51 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Seychelle Advanced Patented Portable Water Filtration Products  
**Attachments:** sey pump pure info pic sheet 16.docx; sey filters types 16.docx

For your determination

**From:** Val Parsel [<mailto:vparsel@gmail.com>]  
**Sent:** Friday, January 29, 2016 12:06 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Subject:** Seychelle Advanced Patented Portable Water Filtration Products

I am following up on yesterday's phone conversation with someone in this office (I don't have the name) regarding our superior portable water filtration products. We have been contacted by so many to get in touch with your office regarding one solution to the Flint, MI water problems. Seychelle Water Filtration has been in business for over twenty years, supplying; the military, missionaries, worldwide disasters, & much more with clean filtered water. **Seychelle designs, manufactures and supplies revolutionary water filtration systems featuring breakthrough technology, most notably, Ionic Adsorption Micro Filtration.** Seychelle's exclusive Ionic Adsorption Micro Filtration is capable of reduction in all four areas of contamination: **Aesthetic, Microbiological, Chemical, and Dissolved Solids.**

**One specific product that we manufacture that is imperative in a contaminated water disaster, is our portable water filtration pump (see attached info).** The Seychelle Supreme Pump with our most Advanced technology, is designed to work with any non-plumbed available water source. Built to reduce up to 99.9999% of cysts, bacteria and viruses from virtually any water source. The NEW Supreme Pump uses Seychelle's Exclusive Ionic-Adsorption Micro-Filtration Technology to eliminate or reduce up to 99.9999% of waterborne contamination such as:

- Aesthetics like sand, silt, odors
- Chemicals from industry, agriculture, and pharmacology
- Dissolved Solids, heavy metals
- Filters up to 100 gallons of water, equal to 650 plus half liter water bottles. Replacement filters available.

Our convenient Advanced pump can be used anywhere... from schools, businesses, homes, to most any water source, except salt water. We also have other easy to use Advanced water filtration products i.e. Advanced water filtration bottles, and more... Our products provide clean water, unlike plastic water bottles where the source of the water can be questionable, plus BPA from the plastic that can also leach into the water... as well as the sustainability factor of so much plastic polluting our environment.

I would be happy to answer any questions, work with you in anyway to empower your city with a solution to offer lead free water (as well as other contaminants) in a very easy to use economical way... Please visit our website [www.seychelle.com](http://www.seychelle.com) to view our products, as well as our pump & filter information that I am attaching to this email.

Thank you for your interest & let me know if you would like any samples to try...

Best regards,

Val Parsel  
Seychelle Water Filtration  
Tel. 888-577-2257

Email: [vparsel@gmail.com](mailto:vparsel@gmail.com)

Website: [www.seychelle.com](http://www.seychelle.com)





Contact: Val Parsel – 888-577-2257

## **NEW patented, portable, Advanced Water Filtration Pump**

### **Product Description**

The Seychelle **SUPREME Water Pump 2 Pure Kit** water pump includes the Seychelle™ SUPREME dual-chambered filter which filters everything all of our other filters do combined... PLUS increases the alkalinity of drinking water up to 9.5pH. It can be used with tap water or outside water sources such as rainwater, rivers, streams or even freshwater lakes. Can also be used with turbid water (stagnant) during emergencies. Cannot be used with brackish water or salt-water which may clog the filter (brackish water has more salinity than fresh water, but not as much as seawater – normally river or estuaries that are near seawater).

Increases the pH alkalinity in water, filters dissolved solids and heavy metals from water filters chemicals from water filters, pathogens from water, filters bacteria from water, filters viruses in water, filters radiation from water.

### **KEY FEATURES**

Includes one replaceable filter.

Hand pump that can attach to kitchen faucet or any other water container.

Produces up to 100 gallons of filtered water or more depending upon the quality of the source water.

Can be used with tap water or outside water sources such as rainwater, rivers, streams or even freshwater lakes. Can also be used with turbid water (stagnant) during emergencies.

Increases alkalinity of drinking water up to 9.5ph

Removes up to 99.9999% of known bacteria and viruses, including Ebola and Enterovirus.

Removes up to 99.99% radiological contaminants that can be found in drinking water.

Removes up to 99.99% of contaminants and pollutants

Proven tested technology. View Seychelle Lab Test Results.

Quick disconnect fittings are installed to allow quick adaptation.

The pump can also be used as shown with the Inline Filters.

Pump 2 Pure Carrying Case included

Can also get Drinking Water from Your Water Heater

You can use the hose attachment from your kit to get water from your water heater or your water hose. Take the hose attachment and screw it directly onto the water heater water outlet. Then attach

the In-Line filter from the bottom using the quick connect and you have access to gallons of drinking water for your family.

## **ABOUT Seychelle FILTRATION**

The Pump 2 Pure uses Seychelles' Exclusive Ionic-Adsorption Micro-Filtration Technology to eliminate or reduce up to 99.9999% of waterborne contamination such as:

**Aesthetic** – Unpleasant taste, odors, cloudiness, silt, sediment, Chlorine

**Bacteria** – Harmful Virus, Bacteriological pathogens', Cryptosporidium, Giardia

**Chemicals** – Toxic chemicals, Arsenic, Trihalomethanes, PCBs, PCEs, detergents, and pesticides (DDT).

**Dissolved Solids** – Heavy Metals, Aluminum, Asbestos, Cadmium, Chromium 6, Copper, Lead, and Mercury.

**Viruses** – Ebola, Enterovirus, Poliovirus 1, MS-2 Coliphage, Rotavirus, MERS and many more.

**Reduces up to 90% of Fluoride.**

**Alkalinity of your drinking water is increased up to 9.5ph**

**Viruses, Bacteria and Contaminants**

**Removes up to 99.99% of toxic chemicals, contaminants, and pollutants found in fresh water supplies including, but not limited to:**

**Chemicals including Chlorine, Chloroforms, Radon 222, DDT, fluoride (up to 90%).**

**Dissolved Solids and Heavy Metals including dirt, Arsenic, Asbestos, Lead, Mercury, Copper, Zinc, Aluminum, trihalomethanes, PCB, PCE, Chromium 6, and other detergents and pesticides.**

**Parasites (Cysts) including Giardia and Cryptosporidium**

**The EPA approved iodinated resin (EPA Reg #: 35917-2), in this filter has been proven effective in the removal of all bacteria and viruses to six logs (99.9999%) including, but not limited to:**

### **Bacteria:**

**Klebsiella terrigena, Legionella, Coli form, Fecal coliform, Cholera, E-Coli, MTBE, Benzene, and many more.**

### **Viruses:**

**Ebola, Enterovirus, Poliovirus 1, MS-2 Coliphage, Rotavirus, MERS and many more.**

### **Radiological Filtration**

**NELAC tested and approved for up to 100% removal of the following radioisotopes:**

**Gross Beta Particles**

**Radioactive Iodine I-131**

**Radon 222**

**Plutonium**

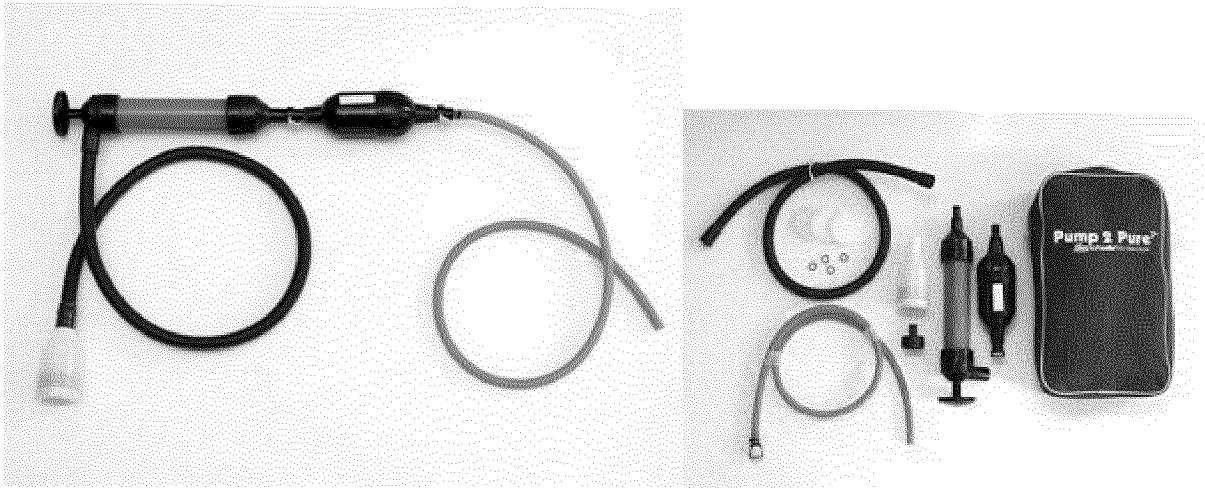
**Uranium**

**Cesium 137**

**Cesium 134**

**Radium 226 (Alpha)**

*Dedicated to improving the quality of life through the quality of our drinking water.*



"We are effectively and positively providing the solution to the public's concerns by taking water filtration to a whole new level of sophistication... via technological advancements and unsurpassed performance. The independent lab tests worldwide, prove beyond a doubt that we have a product line to be trusted." [www.seychelle.com](http://www.seychelle.com)

Seychelle is a prominent company in the fast-growing water filtration industry. We market a complete line of top-quality portable water filtration products and brands in North America and worldwide and have been for over 20 years.

For your health... Water is the single most important nutrient we consume. Our bodies are 75% water and the quality of your life is directly impacted through the quality of your drinking water. By removing harmful contaminants and pollutants, filtered water is better for you and your health.



Contact: Val Parsel – 888-577-2257

## Seychelle Water Filters

Seychelle's Ionic Adsorption Micron Filters are the most laboratory and field-tested of their kind in the world using EPA protocols and tested to NSF/ANSI Standards 42 and 53 by Broward Testing Laboratory. Beneficial trace minerals are not removed in the filtering process. What's good stays...what's bad goes.

### **TYPES OF Seychelle patented FILTERS that are in our various products...**

#### **Seychelle REGULAR Filter**

The Regular filter removes up to 99.99% of chlorine, chemicals (VOCs), heavy metals and Radon 222. Removes up to 90% of fluoride. Since it is more open in porosity, it does not remove giardia, cryptosporidium or E-Coli. It is designed to be used as a drinking water filter for use with chlorinated municipal water and as a bottled water replacement. (Not to be used with salt water)

#### **Seychelle STANDARD Filter**

The Standard filter is ideal for any in or out-door use; like traveling, hiking, biking, camping, fishing or for emergency purposes. It can be used with any type of water source; tap or rainwater, rivers, streams or even lakes (Excluding salt water). It is designed for use with water that is non-turbid, non-stagnant. It removes up to 99.99% of contaminants and pollutants found in fresh water supplies including Aesthetics such as chlorine, Sediment and dirt; Chemicals (VOC's) such as DDT, MTBE, Benzene, Chloroforms (THM's); Dissolved Solids (heavy metals) such as Arsenic, Lead, Mercury, Copper, Zinc, Aluminum, Chromium 6 and up to 99.9% of Biologicals (pathogens) such as Giardia and Cryptosporidium. Removes up to 90% of fluoride.

#### **Seychelle ADVANCED Filter**

The Advanced filter is made of the same media as the Standard filter with the addition of EPA approved iodinated resin (EPA Reg #: 35917-2), which has been proven effective in the removal of bacteria and virus to six logs (99.9999%). Removes up to 90% of fluoride. It can be used in extreme conditions; turbid and stagnant water; and is ideal for emergencies such as hurricanes, cyclones, etc. such as events that occurred in the US with Katrina and the hurricane in Haiti. (Not to be used with salt water)

#### **Seychelle RADIOLOGICAL Filter**

The Radiological filter removes the four basic zones of contamination: Aesthetic (Chlorine, taste and odor), Chemicals (from Industry and Agriculture), Dissolved Solids (heavy metals such as lead, mercury, Chromium 6) and up to 99.99% of Radiological Contaminants such as Gross Beta, Radon 222, Alpha Radium 226, Plutonium, Uranium, Cesium 134 and 137. Removes up to 90% of fluoride. (Not to be used with salt water)

#### **Seychelle EXTREME RAD/ADV Filter**

The Extreme filter removes up to 99.99% of Chlorine, Chemicals (VOC's), Heavy Metals and Radiological Contaminants. It removes up to 99.9999% of Bacteria and Virus and 99.9% of Giardia and



**Cryptosporidium for up to 100 gallons of safe drinking water. The Extreme filters are perfect when using water of an unknown quality, or emergency preparedness, when survival is threatened by earthquakes, hurricanes, tornadoes, floods, fires, radiological contamination or terrorism. Removes up to 90% Fluoride. (Not to be used with salt water)**

#### **Seychelle ALKALINE (pH Enhanced) Filter - pH2O Pure Water Filter**

**The pH Enhanced filter removes up to 99.99% of chlorine, chemicals (VOCs), heavy metals, and Radon 222. It removes up to 90% of fluoride. The new filter, incorporating proprietary medias, increase the alkalinity (pH) of drinking water sources up to 9.5pH... (Your results may vary.) Since it is more open in porosity, it does not remove giardia, cryptosporidium, virus or bacteria. It is designed to be used as a drinking water filter for use with chlorinated municipal water, as a bottled water replacement, and for those who value the benefits of high-quality, alkaline filtered water. (Not to be used with salt water)**

#### **Seychelle SUPREME Filter**

**The Supreme filter is made of the same media as the Extreme Rad/Advance filter with the addition of our proprietary pH medias used in our pH2O Pure Water filter, which increase the alkalinity of drinking water sources up to 9.5pH. The Supreme filter removes up to 99.99% of Chlorine, Chemicals (VOC's), Heavy Metals and Radiological Contaminants. It removes up to 99.9999% of Bacteria and Virus and 99.9% of Giardia and Cryptosporidium for up to 100 gallons of safe drinking water. It removes up to 90% of fluoride and increase the pH balance of drinking water up to 9.5. (Not to be used with salt water)**

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Contact: Val Parsel – 888-577-2257

## **NEW patented, portable, Advanced Water Filtration Pump**

### **Product Description**

The Seychelle **SUPREME Water Pump 2 Pure Kit** water pump includes the Seychelle™ SUPREME dual-chambered filter which filters everything all of our other filters do combined... PLUS increases the alkalinity of drinking water up to 9.5pH. It can be used with tap water or outside water sources such as rainwater, rivers, streams or even freshwater lakes. Can also be used with turbid water (stagnant) during emergencies. Cannot be used with brackish water or salt-water which may clog the filter (brackish water has more salinity than fresh water, but not as much as seawater – normally river or estuaries that are near seawater).

Increases the pH alkalinity in water, filters dissolved solids and heavy metals from water filters chemicals from water filters, pathogens from water, filters bacteria from water, filters viruses in water, filters radiation from water.

### **KEY FEATURES**

Includes one replaceable filter.

Hand pump that can attach to kitchen faucet or any other water container.

Produces up to 100 gallons of filtered water or more depending upon the quality of the source water.

Can be used with tap water or outside water sources such as rainwater, rivers, streams or even freshwater lakes. Can also be used with turbid water (stagnant) during emergencies.

Increases alkalinity of drinking water up to 9.5ph

Removes up to 99.9999% of known bacteria and viruses, including Ebola and Enterovirus.

Removes up to 99.99% radiological contaminants that can be found in drinking water.

Removes up to 99.99% of contaminants and pollutants

Proven tested technology. View Seychelle Lab Test Results.

Quick disconnect fittings are installed to allow quick adaptation.

The pump can also be used as shown with the Inline Filters.

Pump 2 Pure Carrying Case included

Can also get Drinking Water from Your Water Heater

You can use the hose attachment from your kit to get water from your water heater or your water hose. Take the hose attachment and screw it directly onto the water heater water outlet. Then attach

the In-Line filter from the bottom using the quick connect and you have access to gallons of drinking water for your family.

## **ABOUT Seychelle FILTRATION**

The Pump 2 Pure uses Seychelles' Exclusive Ionic-Adsorption Micro-Filtration Technology to eliminate or reduce up to 99.9999% of waterborne contamination such as:

**Aesthetic** – Unpleasant taste, odors, cloudiness, silt, sediment, Chlorine

**Bacteria** – Harmful Virus, Bacteriological pathogens', Cryptosporidium, Giardia

**Chemicals** – Toxic chemicals, Arsenic, Trihalomethanes, PCBs, PCEs, detergents, and pesticides (DDT).

**Dissolved Solids** – Heavy Metals, Aluminum, Asbestos, Cadmium, Chromium 6, Copper, Lead, and Mercury.

**Viruses** – Ebola, Enterovirus, Poliovirus 1, MS-2 Coliphage, Rotavirus, MERS and many more.

**Reduces up to 90% of Fluoride.**

**Alkalinity of your drinking water is increased up to 9.5ph**

**Viruses, Bacteria and Contaminants**

**Removes up to 99.99% of toxic chemicals, contaminants, and pollutants found in fresh water supplies including, but not limited to:**

**Chemicals including Chlorine, Chloroforms, Radon 222, DDT, fluoride (up to 90%).**

**Dissolved Solids and Heavy Metals including dirt, Arsenic, Asbestos, Lead, Mercury, Copper, Zinc, Aluminum, trihalomethanes, PCB, PCE, Chromium 6, and other detergents and pesticides.**

**Parasites (Cysts) including Giardia and Cryptosporidium**

**The EPA approved iodinated resin (EPA Reg #: 35917-2), in this filter has been proven effective in the removal of all bacteria and viruses to six logs (99.9999%) including, but not limited to:**

### **Bacteria:**

**Klebsiella terrigena, Legionella, Coli form, Fecal coliform, Cholera, E-Coli, MTBE, Benzene, and many more.**

### **Viruses:**

**Ebola, Enterovirus, Poliovirus 1, MS-2 Coliphage, Rotavirus, MERS and many more.**

### **Radiological Filtration**

**NELAC tested and approved for up to 100% removal of the following radioisotopes:**

**Gross Beta Particles**

**Radioactive Iodine I-131**

**Radon 222**

**Plutonium**

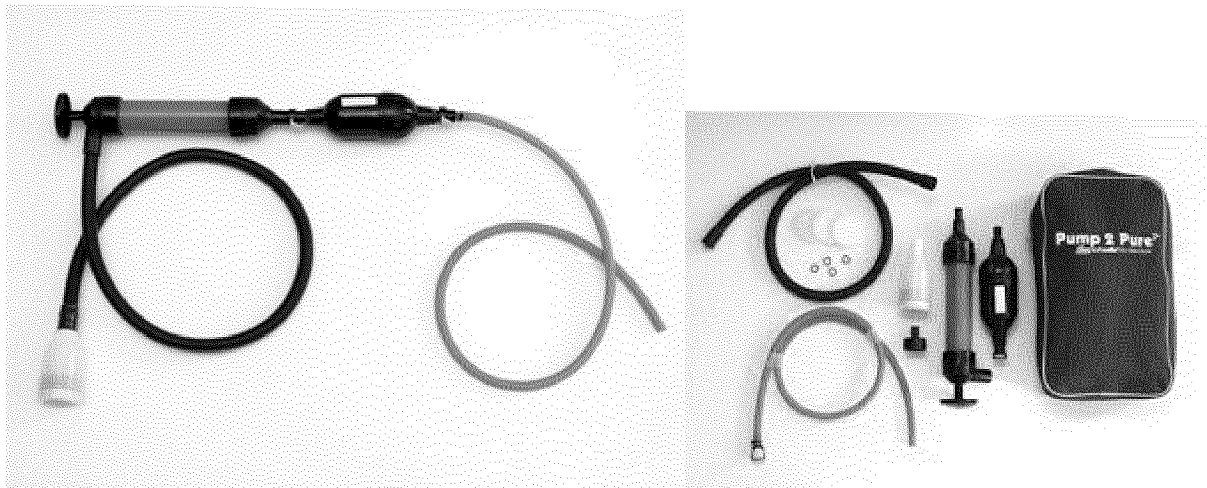
**Uranium**

**Cesium 137**

**Cesium 134**

**Radium 226 (Alpha)**

*Dedicated to improving the quality of life through the quality of our drinking water.*

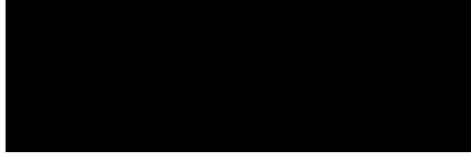


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**CONSTANCE M. BORIS, Ph.D.**



**EDUCATION**

Ph.D., Civil Engineering and Natural Resource Planning and Administration (interdisciplinary doctorate from the School of Engineering and the School of Natural Resources), University of Michigan, Ann Arbor

M.S., Water Resources Engineering, University of Michigan, Ann Arbor

M.S., Applied Mathematics, University of Michigan, Ann Arbor

B.S., Mathematics, University of Detroit

**2004 – Present**

Conducted and managed numerous environmental engineering projects that required in-depth knowledge of industrial operations for thorough environmental investigations, designing innovative approaches to ensure compliance with water, air, and wastewater discharge permits, worked on environmental dredging techniques to remediate contaminated sediment sites.

**REPRESENTATIVE PROJECTS**

**River Raisin National Battlefield Park, Monroe, MI**

Conducted environmental site assessment and investigations on industrial paper mill properties (box factory, pumphouse, sewer lines, underground vaults) and former farmland with dredge spoils that was dedicated by the U.S. National Park Service as the River Raisin National Battlefield Park in Monroe, MI.

**Hull's Road Addition to the River Raisin National Battlefield Park, South Rockwood, MI**

Conducted environmental site assessments and investigations of a two islands and part of the mainland consisting of a marina, boat launch, buildings, underground pump systems, and other structures to add to the River Raisin National Battlefield Park. This area is parallel to the old log road constructed by General Hull during the War of 1812.

**Contaminated Sediment in the Flint River in Flint, Michigan**

Conducted an extensive PCB-contaminated sediment sampling study in the Flint River and in sewers discharging to the River for a major automotive company in Flint.

**Lead Assessments of Low Income Houses in Detroit, MI**

Conducted lead paint inspections and assessments in numerous houses and the soil in low-income areas of Detroit

**Mercury-Contaminated Site, Toledo, Ohio**

Served as technical expert, consultant, and project manager for a Fortune 500 company for a mercury-contaminated site, negotiated and successfully implemented a site closure with the Ohio EPA, satisfying all regulatory requirements.

**Restoration of Lakefront Property for the Archdiocese of Detroit, Grosse Pointe, MI**

Oversight of sampling of suspect lead based paint and asbestos-containing materials in a large lakefront building for St. Paul parish; managed abatement and demolition of the building including removal of chlorofluorohydrocarbons and PCB-containing ballasts, and removal of a large underground storage tank and day tank. Required asbestos abatement, tank pull, and

demolition contractors to follow a health and safety plan including continuous air monitoring, dust emissions control, personal protective equipment, and shoring of excavations. Conducted a site investigation, sampling of the tank excavation and pipe runs as well as backfill for the excavations, and attained clean closure of the site.

#### **Hazardous Waste Landfill in Belleville, MI**

Designed and implemented an innovative 28-day Fish Biouptake Study for PCBs for a major Treatment, Storage, and Disposal Facility in Michigan, using semi-permeable membrane devices instead of live fish, which resulted in demonstrating regulatory NPDES (wastewater discharge) permit compliance by the client.

#### **Contaminated Sediment Removal, Lower Paissaic River, New Jersey**

Worked as a team member for an environmental mechanical dredging project removing 5,000 cubic yards of PCB and dioxin-contaminated sediment in the Lower Paissaic River in New Jersey as part of a high-profile demonstration project for the State of New Jersey, U.S. Department of the Army, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency.

#### **Contaminated Sediment in 10 Mile Drain Canals in St. Clair Shores, MI**

Conducted sediment sampling of the 10 Mile/Lange/Revere Canals in St. Clair Shores, Michigan and discovered higher PCB concentrations in the sediment at the 10 Mile Drain after the completion of a multi-million dollar cleanup than before cleanup was initiated.

#### **Contaminated Sediment Delineation and Removal in the Detroit River, Detroit, MI**

Initiated and prepared the first industrial Great Lakes Legacy Act application in the Detroit River Area of Concern for contaminated sediment delineation and dredging for an industrial property on the Detroit River, including a Sediment Sampling Plan, Environmental Health and Safety Plan, and a Quality Assurance Project Plan for the contaminated sediment site and received U.S. EPA approval for all the Plans.

#### **1999-2004**

##### **STS Consultants (purchased by AECOM)**

Conducted environmental assessments, investigations, remediation for major industrial clients including automotive suppliers, oil refineries, landfills, and banks. Managed staff, provided oversight on environmental health and safety plans, sampling plans, workplans, feasibility studies, and remediation. Selected representative projects include:

##### **Marathon Oil Refinery, Detroit, MI**

Characterized a 22,000 cubic yard waste pile using statistical sampling methods for Marathon Oil Refinery in Michigan, designed and implemented remediation and removal of the waste material and obtained clean closure of the site.

##### **Tower Automotive, Elkton, MI**

Conducted an environmental compliance audit and prepared a SPCC Plan for a million-square-foot Tower Automotive plant, designed and conducted pilot testing for pretreatment of industrial wastewater discharges.

##### **LaFarge Cement Corporation, Tawas City, MI**

Conducted sampling of major outfalls for mercury in wastewater, designed preventative systems to limit mercury discharges, and developed a standard operating procedure for collecting water samples for mercury analysis.



**LaSalle Bank, Chicago, IL**

Managed and assisted in conducting over 200 Phase I environmental site assessments for La Salle Bank's acquisition of banks in Michigan and Illinois.

**SBC/AT&T, Chicago, IL**

Managed and conducted oil tank surveys and oil/water separator surveys at 168 sites for SBC/AT&T and prepared numerous Spill Prevention, Control, and Countermeasures (SPCC) Plans as well as Contingency Plans.

**Kraft Foods, Chicago, IL**

Prepared an environmental management system for tracking all regulations and reporting requirements for water quality for Kraft Foods.

**1993-1999****Progressive Environmental and Engineering, Inc. and C. Boris Environmental Consulting**

Client Manager for major brownfield redevelopment projects which remediates contaminated properties for productive economic re-use.

**Carter Industrials, Inc. Superfund Site, Detroit, MI**

Managed the Carter Superfund site in Detroit, Michigan and served as the technical expert to the Potentially Responsible Party (PRP) Group which included delineating off-site PCB contamination, sampling and analysis of surface water on a monthly basis, overseeing site security and a carbon-based remediation system for PCBs in surface water runoff, and developing strong community relations with adjoining residential and industrial neighbors. The Carter Industrials, Inc. site was successfully delisted from the National Priority List.

**Former Equipment Manufacturing, Inc. (EMI) Brownfield Site, Warren, MI**

Managed the environmental investigation and remediation of a \$1.4 million industrial brownfield redevelopment site in Warren, Michigan, including environmental investigations, risk analysis, feasibility study, remedial design, and remedial action which included cleaning a 500,000 ft<sup>2</sup> plant floor, removing three large PCB transformers, removing asbestos & lead-based paint, cleaning and filling in press pits, removing over 100 drums of liquid, removing rail spurs and lead-contaminated soil, sampling oil reservoirs in machinery and disposal of machinery, removing tanks, and decontaminating overhead cranes, walls, and floors to achieve site closure. Other site work included the removal of 5,000 cubic yards of scrap metal, demolition debris, and contaminated soil in the adjacent storage yards and the preparation of bid documents for implementing the remedial action. The clean closure of this site, pursuant to a Clean Michigan Initiative grant, resulted in re-use of the site.

**Former Parker Majestic Site, Detroit, MI**

Managed the environmental investigation and remediation of the former Parker Majestic site, including an investigation of soil contamination, remediation of former PCB transformer areas, and removal of large underground storage tanks. Achieved clean site closure and reuse of the site as a park area near Stroh's Place.

**Former Chesterfield Township Sludge Lagoon System, Chesterfield Twp., MI**

Managed the environmental investigation of a \$150 million industrial re-development project in Chesterfield Township, Michigan which included soil and groundwater investigations, surface water, and sediment sampling for a 70-acre, three-cell lagoon, remedial design and implementation of a lagoon dewatering closure plan, which culminated in clean closure.

**GM Tarrytown Plant, Tarrytown, New Jersey**

Prepared bid documents for stormwater pollution prevention and permit during demolition of a large GM plant in Tarrytown, New Jersey.

**Compliance Audits**

Conducted numerous compliance audits for private sector clients including drum and hazardous waste labels, secondary containment, pipe markings, secondary containment, paint and solvent storage cabinets, lock-out/tag-out, inventory compliance, and other requirements.

**1990-1993**

**WW ENGINEERING & SCIENCE, INC.**

**Associate, Client Manager for General Motors, Sherwin-Williams, and Petro-Chem Processing, Senior Project Manager**

**General Motors - Environmental Investigation, Design, and Remediation**

Managed over 20 large successful projects for GM plants in Flint, Michigan including extent of PCB contamination studies, design and remediation of contaminants in buildings, sewer lines and outfalls, storage areas, tank farms, underground vaults, and rail lines; treatability studies for pretreatment of oily wastewater, river sediment sampling; engineering design and implementation of remedial systems for free product removal from two large underground tank farms, an automotive spring manufacturing plant, and coolant spill remediation from an engine assembly plant. Also, managed and prepared the first industrial stormwater permit application to the State of Michigan for GM, including wastewater discharge sampling at major outfalls into the Flint River during rainfall events.

**Petro-Chem Processing – Environmental Investigation, Design, and Remediation**

Managed 12 engineering and hydrogeological projects for a major Treatment, Storage, and Disposal facility including a hydrogeological investigation for a Michigan Act 64 permit; extent of contamination investigations for both soil and groundwater; the first use of synthetic leachate testing for characterizing hazardous waste as an alternative to the Toxicity Characteristic Leachate Procedure; a major risk assessment study; remedial design and workplans for remediating metals and volatile organic compounds in soils.

**1988-1990**

**HART ENVIRONMENTAL MANAGEMENT CORP. (sold to McLaren Engineers)**

Managed the investigation and remediation of environmental projects for a major automotive company and several major Superfund sites in Michigan and Ohio.

**Manager, Hydrogeological Engineering Department**

Managed environmental site investigations, design, and remediation contractors for Superfund sites on behalf of Chrysler Corporation; managed the first soil flushing system in Michigan using a network of extraction wells, monitoring wells, pumps, and activated carbon systems to remediate a solvent-contaminated site; served on Potentially Responsible Party (PRP) committees representing industrial clients involved in Superfund sites; oversaw the EPA investigation of the Walker Superfund battery reclamation site; managed environmental compliance and liability audits for property transfers; managed and oversaw the installation and monitoring of carbon filtration system for remediating PCB concentrations in wastewater discharges at the Carter Industrials Inc. Superfund site; and obtained a 250-point reduction in a state agency's site hazard ranking score for the Carter Industrials Superfund site based on analysis.

**1985-1988**

**U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C.**

**OFFICE OF WASTE PROGRAMS ENFORCEMENT**

As assistant to the Director of EPA's Office of Waste Programs Enforcement, served to manage public policy and analysis in the environmental protection of the nation's soil, water and air resources, especially for Superfund sites and other hazardous waste sites.

**Special Assistant to the Director**

Resolved National Priority List (NPL or Superfund) site issues, coordinated regulatory programs between Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), which regulates hazardous wastes from cradle to grave; developed incentives for voluntary private party cleanups of Superfund sites through covenants-not-to-sue, cost recovery, mixed funding settlements, non-binding allocations of responsibility, de minimus buyouts, and other incentives in lieu of Section 106 enforcement orders, and prepared Congressional testimony.

**OFFICE OF WATER**

**Environmental Protection Specialist**

Drafted regulations to implement amendments to the Clean Water Act; one of three individuals that developed the draft federal language to authorize the State Revolving Loan Funds to finance the construction of municipal wastewater treatment plants; and resolved National Pollutant Discharge Elimination System (NPDES) permit issues.

**1980-1985**

**UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN**

**Assistant Professor**

Taught undergraduate and graduate courses in Mathematical Modeling of Natural Resource Systems, Natural Resource Policy, and Risk Analysis; conducted research on incentives for voluntary cleanup of Superfund sites and liability issues.

**1975-1980**

**RESOURCES FOR THE FUTURE (natural resources think-tank)**

As a Fellow at Resources for the Future, managed public policy research and analysis in the development of energy resources for the nation, including the U.S. Department of Interior and the U.S. Department of Energy; managed staff and reviewed reports and publications.

**Fellow, Research Associate**

Served as a consultant to the U.S. Department of the Interior and the U.S. Department of Energy on the economic and engineering feasibility of coal synthetic fuels development (coal gasification and coal liquefaction) in the Powder River Basin of Montana and Wyoming.

Developed a mathematical hydrological simulation model of the Yellowstone River Basin including hydrology (water supply) and legal water rights (water demand) including Native American water rights, irrigation water rights, in-stream uses for fish and wildlife, to assess if water was a constraint on western synthetic fuel development (coal gasification and liquefaction), which resulted in a peer-reviewed book titled Water Rights and Energy Development.

Served as an advisor to the U.S. Department of Energy on research conducted at the Pacific Northwest Laboratory and the Oak Ridge Laboratory.

## **CERTIFICATIONS/TRAINING/AWARDS**

40-Hour HAZWOPER Training and current Annual (2015) 8-Hour Refresher Training

Certified Lead Inspector and Lead Risk Assessor (2001 – 2005).

MDEQ - Certified Storage Tank Professional (#633).

Certified Hazardous Materials Manager, Master Level (1992 – 2004).

Received an Award for Community Service for investigation of PCBs in sediments in St. Clair Shores from the Michigan Association of Environmental Professionals.

Received an Award from the Monroe Historical Society for my environmental work on three parcels incorporated into the River Raisin National Battlefield Park.

Received an Award for Outstanding Service to the Society of American Military Engineers for serving as Chair, 2009 Great Lakes and Ohio Valley Regional Conference in cooperation with the U.S. Army Corps of Engineers.

Received an Award from the Wayne County Farm Bureau for Community Service.

Appointed to the Michigan Environmental Science Board by Governor Granholm.

Semi-Finalist, White House Fellowship, and Meeting with President George Bush.

## **APPOINTMENTS/BOARD MEMBERSHIPS**

Board Member, Michigan Environmental Science Board (2006-2008).

Board Member, Wayne County Farm Bureau (2012 – 2015)

Board Member, Haiti and Africa Relief Team, Inc. (2010 – 2014)

Elected Member of the Board of Directors, Wayne County Conservation District (2001 – 2005).

President, Society of American Military Engineers (S.A.M.E.), Detroit Post, 2008-2009.

Chair, 2009 S.A.M.E. Great Lakes and Ohio Valley Regional Conference held at the Detroit Marriott in Detroit, MI in cooperation with the U.S. Army Corps of Engineers.

Chair, Detroit River Remedial Action Plan Public Advisory Council.

Vice-Chair and Member of the Board of Directors, Detroit River Remedial Action Plan Partnership, Inc.

Special Assistant to the Chairman of the Governor's Special Commission on Energy.

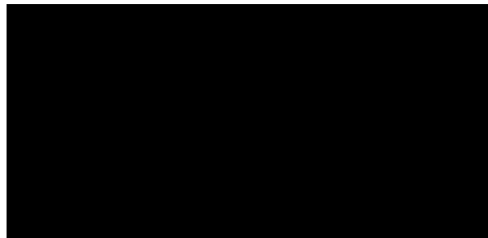
Message

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**From:** Stoken, Laura (GOV) [/O=MIGOV/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=JESSL]  
**Sent:** 1/29/2016 9:05:22 PM  
**To:** Sachs, Tori (GOV) [/O=MIGOV/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Rexfordv]  
**CC:** Saunders, Kelli (GOV) [/O=MIGOV/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Saundersk1]  
**Subject:** FW: Technical Assistance on Flint Water Issue  
**Attachments:** Connie Boris Resume.doc

For you

**From:** Connie Boris [mailto:cboris4@gmail.com]  
**Sent:** Friday, January 29, 2016 3:37 PM  
**To:** Calley, Brian (GOV) <Brian.Calley@michigan.gov>  
**Subject:** Technical Assistance on Flint Water Issue



TO: Lt. Governor Brian Calley

FROM: Connie Boris, Ph.D.

RE: Technical Assistance on Flint Water Issue

DATE: January 29, 2016

It has been on my mind for a few weeks now to offer my technical environmental engineering expertise to assist the Snyder Administration to work on the water quality problem in Flint. I'm familiar with Flint as my dear godfather and my Aunt Mary lived on Lomita Street adjacent to the GM engine plant. I even have memories of the water running from their home faucet back then.

By way of education, I have a Ph.D. in Civil Engineering: Water Resources Engineering from the University of Michigan in Ann Arbor.

My work experience over the past 25 years includes working at the Office of Water at the U.S. Environmental Protection Agency Headquarters in Washington D.C. and in the Office of Waste Programs Enforcement (i.e., Superfund Site work), Assistant Professor at the University of Michigan in Ann Arbor, and environmental consulting including contaminant investigation and remediation for major industrial clients (e.g., General Motors' automotive plants in Flint and sediment sampling in the Flint River). More recently, I've been working with the U.S. National Park Service on environmental issues related to expanding the River Raisin National Battlefield Park. I also served on the State of Michigan Environmental Science Board.

If Governor Snyder's administration is interested in my assistance on the Flint water issue, I've attached a resume and always feel free to call me at [REDACTED]

Sincerely,

Connie Boris

CONSTANCE M. BORIS, Ph.D.



## **EDUCATION**

Ph.D., Civil Engineering and Natural Resource Planning and Administration (interdisciplinary doctorate from the School of Engineering and the School of Natural Resources), University of Michigan, Ann Arbor

M.S., Water Resources Engineering, University of Michigan, Ann Arbor

M.S., Applied Mathematics, University of Michigan, Ann Arbor

B.S., Mathematics, University of Detroit

## **2004 – Present**

Conducted and managed numerous environmental engineering projects that required in-depth knowledge of industrial operations for thorough environmental investigations, designing innovative approaches to ensure compliance with water, air, and wastewater discharge permits, worked on environmental dredging techniques to remediate contaminated sediment sites.

## **REPRESENTATIVE PROJECTS**

### **River Raisin National Battlefield Park, Monroe, MI**

Conducted environmental site assessment and investigations on industrial paper mill properties (box factory, pumphouse, sewer lines, underground vaults) and former farmland with dredge spoils that was dedicated by the U.S. National Park Service as the River Raisin National Battlefield Park in Monroe, MI.

### **Hull's Road Addition to the River Raisin National Battlefield Park, South Rockwood, MI**

Conducted environmental site assessments and investigations of a two islands and part of the mainland consisting of a marina, boat launch, buildings, underground pump systems, and other structures to add to the River Raisin National Battlefield Park. This area is parallel to the old log road constructed by General Hull during the War of 1812.

### **Contaminated Sediment in the Flint River in Flint, Michigan**

Conducted an extensive PCB-contaminated sediment sampling study in the Flint River and in sewers discharging to the River for a major automotive company in Flint.

### **Lead Assessments of Low Income Houses in Detroit, MI**

Conducted lead paint inspections and assessments in numerous houses and the soil in low-income areas of Detroit

### **Mercury-Contaminated Site, Toledo, Ohio**

Served as technical expert, consultant, and project manager for a Fortune 500 company for a mercury-contaminated site, negotiated and successfully implemented a site closure with the Ohio EPA, satisfying all regulatory requirements.

### **Restoration of Lakefront Property for the Archdiocese of Detroit, Grosse Pointe, MI**

Oversight of sampling of suspect lead based paint and asbestos-containing materials in a large lakefront building for St. Paul parish; managed abatement and demolition of the building including removal of chlorofluorohydrocarbons and PCB-containing ballasts, and removal of a large underground storage tank and day tank. Required asbestos abatement, tank pull, and

demolition contractors to follow a health and safety plan including continuous air monitoring, dust emissions control, personal protective equipment, and shoring of excavations. Conducted a site investigation, sampling of the tank excavation and pipe runs as well as backfill for the excavations, and attained clean closure of the site.

#### **Hazardous Waste Landfill in Belleville, MI**

Designed and implemented an innovative 28-day Fish Biouptake Study for PCBs for a major Treatment, Storage, and Disposal Facility in Michigan, using semi-permeable membrane devices instead of live fish, which resulted in demonstrating regulatory NPDES (wastewater discharge) permit compliance by the client.

#### **Contaminated Sediment Removal, Lower Passaic River, New Jersey**

Worked as a team member for an environmental mechanical dredging project removing 5,000 cubic yards of PCB and dioxin-contaminated sediment in the Lower Passaic River in New Jersey as part of a high-profile demonstration project for the State of New Jersey, U.S. Department of the Army, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency.

#### **Contaminated Sediment in 10 Mile Drain Canals in St. Clair Shores, MI**

Conducted sediment sampling of the 10 Mile/Lange/Revere Canals in St. Clair Shores, Michigan and discovered higher PCB concentrations in the sediment at the 10 Mile Drain after the completion of a multi-million dollar cleanup than before cleanup was initiated.

#### **Contaminated Sediment Delineation and Removal in the Detroit River, Detroit, MI**

Initiated and prepared the first industrial Great Lakes Legacy Act application in the Detroit River Area of Concern for contaminated sediment delineation and dredging for an industrial property on the Detroit River, including a Sediment Sampling Plan, Environmental Health and Safety Plan, and a Quality Assurance Project Plan for the contaminated sediment site and received U.S. EPA approval for all the Plans.

#### **1999-2004**

##### **STS Consultants (purchased by AECOM)**

Conducted environmental assessments, investigations, remediation for major industrial clients including automotive suppliers, oil refineries, landfills, and banks. Managed staff, provided oversight on environmental health and safety plans, sampling plans, workplans, feasibility studies, and remediation. Selected representative projects include:

##### **Marathon Oil Refinery, Detroit, MI**

Characterized a 22,000 cubic yard waste pile using statistical sampling methods for Marathon Oil Refinery in Michigan, designed and implemented remediation and removal of the waste material and obtained clean closure of the site.

##### **Tower Automotive, Elkton, MI**

Conducted an environmental compliance audit and prepared a SPCC Plan for a million-square-foot Tower Automotive plant, designed and conducted pilot testing for pretreatment of industrial wastewater discharges.

##### **LaFarge Cement Corporation, Tawas City, MI**

Conducted sampling of major outfalls for mercury in wastewater, designed preventative systems to limit mercury discharges, and developed a standard operating procedure for collecting water samples for mercury analysis.



**LaSalle Bank, Chicago, IL**

Managed and assisted in conducting over 200 Phase I environmental site assessments for La Salle Bank's acquisition of banks in Michigan and Illinois.

**SBC/AT&T, Chicago, IL**

Managed and conducted oil tank surveys and oil/water separator surveys at 168 sites for SBC/AT&T and prepared numerous Spill Prevention, Control, and Countermeasures (SPCC) Plans as well as Contingency Plans.

**Kraft Foods, Chicago, IL**

Prepared an environmental management system for tracking all regulations and reporting requirements for water quality for Kraft Foods.

**1993-1999****Progressive Environmental and Engineering, Inc. and C. Boris Environmental Consulting**

Client Manager for major brownfield redevelopment projects which remediates contaminated properties for productive economic re-use.

**Carter Industrials, Inc. Superfund Site, Detroit, MI**

Managed the Carter Superfund site in Detroit, Michigan and served as the technical expert to the Potentially Responsible Party (PRP) Group which included delineating off-site PCB contamination, sampling and analysis of surface water on a monthly basis, overseeing site security and a carbon-based remediation system for PCBs in surface water runoff, and developing strong community relations with adjoining residential and industrial neighbors. The Carter Industrials, Inc. site was successfully delisted from the National Priority List.

**Former Equipment Manufacturing, Inc. (EMI) Brownfield Site, Warren, MI**

Managed the environmental investigation and remediation of a \$1.4 million industrial brownfield redevelopment site in Warren, Michigan, including environmental investigations, risk analysis, feasibility study, remedial design, and remedial action which included cleaning a 500,000 ft<sup>2</sup> plant floor, removing three large PCB transformers, removing asbestos & lead-based paint, cleaning and filling in press pits, removing over 100 drums of liquid, removing rail spurs and lead-contaminated soil, sampling oil reservoirs in machinery and disposal of machinery, removing tanks, and decontaminating overhead cranes, walls, and floors to achieve site closure. Other site work included the removal of 5,000 cubic yards of scrap metal, demolition debris, and contaminated soil in the adjacent storage yards and the preparation of bid documents for implementing the remedial action. The clean closure of this site, pursuant to a Clean Michigan Initiative grant, resulted in re-use of the site.

**Former Parker Majestic Site, Detroit, MI**

Managed the environmental investigation and remediation of the former Parker Majestic site, including an investigation of soil contamination, remediation of former PCB transformer areas, and removal of large underground storage tanks. Achieved clean site closure and reuse of the site as a park area near Stroh's Place.

**Former Chesterfield Township Sludge Lagoon System, Chesterfield Twp., MI**

Managed the environmental investigation of a \$150 million industrial re-development project in Chesterfield Township, Michigan which included soil and groundwater investigations, surface water, and sediment sampling for a 70-acre, three-cell lagoon, remedial design and implementation of a lagoon dewatering closure plan, which culminated in clean closure.

**GM Tarrytown Plant, Tarrytown, New Jersey**

Prepared bid documents for stormwater pollution prevention and permit during demolition of a large GM plant in Tarrytown, New Jersey.

**Compliance Audits**

Conducted numerous compliance audits for private sector clients including drum and hazardous waste labels, secondary containment, pipe markings, secondary containment, paint and solvent storage cabinets, lock-out/tag-out, inventory compliance, and other requirements.

**1990-1993**

**WW ENGINEERING & SCIENCE, INC.**

**Associate, Client Manager for General Motors, Sherwin-Williams, and Petro-Chem Processing, Senior Project Manager**

**General Motors - Environmental Investigation, Design, and Remediation**

Managed over 20 large successful projects for GM plants in Flint, Michigan including extent of PCB contamination studies, design and remediation of contaminants in buildings, sewer lines and outfalls, storage areas, tank farms, underground vaults, and rail lines; treatability studies for pretreatment of oily wastewater, river sediment sampling; engineering design and implementation of remedial systems for free product removal from two large underground tank farms, an automotive spring manufacturing plant, and coolant spill remediation from an engine assembly plant. Also, managed and prepared the first industrial stormwater permit application to the State of Michigan for GM, including wastewater discharge sampling at major outfalls into the Flint River during rainfall events.

**Petro-Chem Processing – Environmental Investigation, Design, and Remediation**

Managed 12 engineering and hydrogeological projects for a major Treatment, Storage, and Disposal facility including a hydrogeological investigation for a Michigan Act 64 permit; extent of contamination investigations for both soil and groundwater; the first use of synthetic leachate testing for characterizing hazardous waste as an alternative to the Toxicity Characteristic Leachate Procedure; a major risk assessment study; remedial design and workplans for remediating metals and volatile organic compounds in soils.

**1988-1990**

**HART ENVIRONMENTAL MANAGEMENT CORP. (sold to McLaren Engineers)**

Managed the investigation and remediation of environmental projects for a major automotive company and several major Superfund sites in Michigan and Ohio.

**Manager, Hydrogeological Engineering Department**

Managed environmental site investigations, design, and remediation contractors for Superfund sites on behalf of Chrysler Corporation; managed the first soil flushing system in Michigan using a network of extraction wells, monitoring wells, pumps, and activated carbon systems to remediate a solvent-contaminated site; served on Potentially Responsible Party (PRP) committees representing industrial clients involved in Superfund sites; oversaw the EPA investigation of the Walker Superfund battery reclamation site; managed environmental compliance and liability audits for property transfers; managed and oversaw the installation and monitoring of carbon filtration system for remediating PCB concentrations in wastewater discharges at the Carter Industrials Inc. Superfund site; and obtained a 250-point reduction in a state agency's site hazard ranking score for the Carter Industrials Superfund site based on analysis.

**1985-1988**

**U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C.**

**OFFICE OF WASTE PROGRAMS ENFORCEMENT**

As assistant to the Director of EPA's Office of Waste Programs Enforcement, served to manage public policy and analysis in the environmental protection of the nation's soil, water and air resources, especially for Superfund sites and other hazardous waste sites.

**Special Assistant to the Director**

Resolved National Priority List (NPL or Superfund) site issues, coordinated regulatory programs between Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), which regulates hazardous wastes from cradle to grave; developed incentives for voluntary private party cleanups of Superfund sites through covenants-not-to-sue, cost recovery, mixed funding settlements, non-binding allocations of responsibility, de minimus buyouts, and other incentives in lieu of Section 106 enforcement orders, and prepared Congressional testimony.

**OFFICE OF WATER**

**Environmental Protection Specialist**

Drafted regulations to implement amendments to the Clean Water Act; one of three individuals that developed the draft federal language to authorize the State Revolving Loan Funds to finance the construction of municipal wastewater treatment plants; and resolved National Pollutant Discharge Elimination System (NPDES) permit issues.

**1980-1985**

**UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN**

**Assistant Professor**

Taught undergraduate and graduate courses in Mathematical Modeling of Natural Resource Systems, Natural Resource Policy, and Risk Analysis; conducted research on incentives for voluntary cleanup of Superfund sites and liability issues.

**1975-1980**

**RESOURCES FOR THE FUTURE (natural resources think-tank)**

As a Fellow at Resources for the Future, managed public policy research and analysis in the development of energy resources for the nation, including the U.S. Department of Interior and the U.S. Department of Energy; managed staff and reviewed reports and publications.

**Fellow, Research Associate**

Served as a consultant to the U.S. Department of the Interior and the U.S. Department of Energy on the economic and engineering feasibility of coal synthetic fuels development (coal gasification and coal liquefaction) in the Powder River Basin of Montana and Wyoming.

Developed a mathematical hydrological simulation model of the Yellowstone River Basin including hydrology (water supply) and legal water rights (water demand) including Native American water rights, irrigation water rights, in-stream uses for fish and wildlife, to assess if water was a constraint on western synthetic fuel development (coal gasification and liquefaction), which resulted in a peer-reviewed book titled Water Rights and Energy Development.

Served as an advisor to the U.S. Department of Energy on research conducted at the Pacific Northwest Laboratory and the Oak Ridge Laboratory.

## **CERTIFICATIONS/TRAINING/AWARDS**

40-Hour HAZWOPER Training and current Annual (2015) 8-Hour Refresher Training

Certified Lead Inspector and Lead Risk Assessor (2001 – 2005).

MDEQ - Certified Storage Tank Professional (#633).

Certified Hazardous Materials Manager, Master Level (1992 – 2004).

Received an Award for Community Service for investigation of PCBs in sediments in St. Clair Shores from the Michigan Association of Environmental Professionals.

Received an Award from the Monroe Historical Society for my environmental work on three parcels incorporated into the River Raisin National Battlefield Park.

Received an Award for Outstanding Service to the Society of American Military Engineers for serving as Chair, 2009 Great Lakes and Ohio Valley Regional Conference in cooperation with the U.S. Army Corps of Engineers.

Received an Award from the Wayne County Farm Bureau for Community Service.

Appointed to the Michigan Environmental Science Board by Governor Granholm.

Semi-Finalist, White House Fellowship, and Meeting with President George Bush.

## **APPOINTMENTS/BOARD MEMBERSHIPS**

Board Member, Michigan Environmental Science Board (2006-2008).

Board Member, Wayne County Farm Bureau (2012 – 2015)

Board Member, Haiti and Africa Relief Team, Inc. (2010 – 2014)

Elected Member of the Board of Directors, Wayne County Conservation District (2001 – 2005).

President, Society of American Military Engineers (S.A.M.E.), Detroit Post, 2008-2009.

Chair, 2009 S.A.M.E. Great Lakes and Ohio Valley Regional Conference held at the Detroit Marriott in Detroit, MI in cooperation with the U.S. Army Corps of Engineers.

Chair, Detroit River Remedial Action Plan Public Advisory Council.

Vice-Chair and Member of the Board of Directors, Detroit River Remedial Action Plan Partnership, Inc.

Special Assistant to the Chairman of the Governor's Special Commission on Energy.

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**From:** Stoken, Laura (GOV)  
**Sent:** Friday, January 29, 2016 4:19 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company- S313594

Charles Bondy  
760-473-4249  
[chas007y@yahoo.com](mailto:chas007y@yahoo.com)

Sir, I am from California and I would suggest that you get your best engineer (and I mean your BEST ENGINEER) to look at [www.phoenixenergynv.com](http://www.phoenixenergynv.com). They have a new process for renewable energy using induction and magnetic fields. These people can help solve your Flint water problem. Then off the site, contact either Brian Smith or Mike Dooley. They are the engineer founders of this new process.

You put out a call for a solution, here it is.

Charles Bondy

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**From:** Weise, Kevin (MSP)  
**Sent:** Tuesday, February 16, 2016 9:45 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** FW: Vendor inquiries (2/2)  
**Attachments:** FW 4.zip

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

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**From:** GOV Scheduling  
**Sent:** Monday, February 01, 2016 12:13 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint Water Help  
**Attachments:** Cover letter And Resume With Attachments for Gov Snyder 2016.pdf

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**From:** Edward G. Wenz, Jr. [<mailto:edward@leadrenovatortraining.net>]  
**Sent:** Monday, February 01, 2016 10:29 AM  
**To:** GOV Scheduling <[GOVScheduling@michigan.gov](mailto:GOVScheduling@michigan.gov)>  
**Subject:** Flint Water Help

Feb 1, 2016

Governor Rick Snyder -

I am writing this letter and have attached a cover letter and resume for myself for your review. I would like to help you, City of Flint, Flint residents, & the State of Michigan with this Flint Lead Water issue.

I feel with my unique background, knowledge, & skill set I would be helpful in working to find the right resolution to the crisis. I feel with my resume, I will be able to assist in all areas of the work that needs to be done. And come up with and manage the proper implementation of a "fix" to this issue. There are alot of people helping you but I'm not sure with the knowledge that I possess from the construction, lead inspections/risk assessments, water testing, housing rehab, water & sewer infrastructure, and safety needs of the public and workers.

Please feel free to contact me at anytime.

Sincerely,

Ed Wenz

*Edward G. Wenz, Jr.*  
**Contractors Training Institute, LLC**  
**Lead Renovator Training, LLC**  
**CTI - Consulting, Testing, & Inspections, LLC**  
**Michigan Builders Training & Builders Con-Ed**  
248-698-6900 ~ Fax# 248-694-2001  
Construction/ Environmental Consulting & Education

# Edward G. Wenz, Jr.

February 1, 2016

To Governor Rick Snyder:

I am writing in letter to offer my services to help you, the State of Michigan, & the residents of Flint my professional services and background to help with this water situation that has impacted the community.

I am currently an State of Michigan and EPA Trainer for the new RRP Rule, a State of Michigan Trainer for Lead Abatement (Worker, Supervisor, Inspector, & Risk Assessor), State of Michigan Trainer for Asbestos (Supervisor & Inspector), and State of Michigan Trainer for builders / contractors handling pre-lic classes, con-ed, osha, mold, & asbestos awareness. I am the owner of a Michigan Proprietary School for Builders Courses. I also own CTI – Consulting, Testing, & Inspections, which is a firm that inspects home, write rehab specifications, lead lead inspections & lead risk assessments, asbestos surveys, federal programs management, and more.

I previously worked with City of Pontiac Federal Programs as the Federal Programs Construction Manager. I handled many areas for the Federal Programs including, demolition of homes for emergency & scheduled programs, water/sewer/electrical/gas disconnects with a survey of all to document for future use, homeowner rehab, NSP rehab, board up, lawn mowing & debris clean ups, spec writing, training of contractors for the city, RFP's for many programs, and much more.

I have previously worked for Macomb County Planning Dept where I was a Rehabilitation Specialist with the Macomb County Rehabilitation Program, and I feel that my background was well suited for this position. In my position as a Rehabilitation Specialist / Building Inspector, I inspected homes for code violations, HUD HQS, and deficiencies in the building, plumbing, hvac, and electrical trades. I also write up specifications and bid out new rehabilitation projects, as well as monitor, inspect work upon completion, and process billings for housing rehabilitation projects. I wrote the county rehab contractor manual and designed and wrote a new inspection report, along with making it a computer application.

In addition to my experience a contractor, trainer, and with Pontiac & Macomb County, I have a residential builder's license, I hold licenses with the State of Michigan as a Lead Supervisor and Lead Inspector / Risk Assessor, Asbestos Supervisor Contractor, Asbestos Inspector, Mold Remediation Specialist, Certified Indoor Air Quality Tech, and I have owned my own construction firm since 1995. The construction company I owned had 50 employees contracting work in new construction, remodeling, additions, fire restoration, demolition, & commercial contracting. My firm had contracted installation programs for Home Depot and Lowe's, along with commercial work in retail, commercial, and institutional buildings in various counties. I previously sat on the Zoning Board of Appeals for St. Clair Shores, and I also have worked with local attorneys as an expert witness for homeowners with legal matters regarding construction.

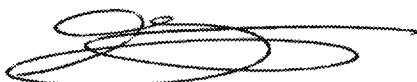
I would consider it a great opportunity to work for / with the State with my skills and unique background that very few have with the well rounded knowledge of all aspects of the issues and how to fix, bid, & manage for the Flint Water issue. I would like to provide any other details as to my background & knowledge and/or the fix as I see it at your request. I will make time to meet with you anytime.

Thank you for taking the time to consider my resume and application to help. I look forward to speaking with you or your department.

## References:

- More available upon request

Thank you for your time and consideration,



Edward G. Wenz, Jr.  
Enclosure – Resume



# Edward G. Wenz, Jr.

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## **EMPLOYMENT OBJECTIVE:**

To utilize my past experience & knowledge to gain personal growth & advancement in the construction field.

## **WORK EXPERIENCE:**

2010 – Present **Contractors Training Institute, LLC**

**Lead Renovator Training, LLC ~ Member / Trainer / Instructor**

**Michigan Builders Training, LLC & Builders Con-Ed, LLC**

**CTI – Consulting, Testing, & Inspections, LLC**

- Trainer for EPA Certified Renovator course, Mold Remediation, OSHA Safety, Asbestos
- Trainer of Lead Abatement Supervisor, Lead Inspector, Risk Assessor, Worker
- Trainer / Instructor for Michigan 60 Hr Builders Pre-Licensure Class & Builders Con-Ed
- Trainer for Asbestos Supervisor Contractor & Inspector Courses
- Built Online School for Contractor Training, Along with specialty websites & phone apps
- CTI-Consulting, Testing, & Inspections division of firm handling lead, asbestos, mold, & project management
  - Work for Macomb County Rehab program as rehab specialist, spec write, inspector
  - Work for Habitat For Humanity Macomb & Detroit as spec writer, rehab specialist, inspector, & lead inspector/lead risk assessor

1994 – Present **Winner Investment, Inc. ~ Owner**

- Established a property management company that currently owns and manages six (6) residential rental units throughout Macomb County. This firm owned and managed over 38 properties including commercials and residential apartments in previous years.
- Also, DBA Michigan Inspection Consultants, LLC; inspection & consulting services

May 2011 – Feb 2012 **City of Pontiac Federal Programs**

- Construction Manager / Rehab Specialist for Federal Programs HUD Grants & NSP
- Inspections of residential homes for code and write specification for all work, HOME Funds Implemented Programs for: Emergency Board-Up, Lawn ordinance mowing, Dumping clean-ups,
- Coordinated restart of NSP program for City to meet all HUD requirements, completed work that was on hold
- Demolition Program for Emergency & Scheduled demos, Coordinated all disconnects for water/sewer/electrical/gas for Michigan Land Bank NSP2 & CDBG. Along with surveying all water & sewer lines for mapping utilities for future use.

2006 – 2010 **Mini Dumpsters, LLC ~ Member**

- Established a waste & recycling firm = SOLD Firm
- Company was established with one dump trailer, when sold the business had 30 trailers, 18 roll off boxes, 3 trucks, 2 frontload trash trucks with revenue of \$500K per year

2003 – 2008 **~ Macomb County Rehabilitation Specialist I**  
**Dept. of Planning & Economic Development**

- Performed functions of Rehabilitation Specialist / Building Inspector
- Managed rehabs for Lead Inspection & Lead Risk Assessments on work for county.
- Designed and wrote county housing inspection report
- Wrote county rehab program contractor manual
- Trained contractors in work practices, lead work, & processes

1998 – Present **At Home Services, LLC ~ Owner**

- Established general contracting company for residential work. *Inactive.*

2003 – 2007 **RW Builders, LLC ~ Member**

- Established building & development partnership firm, building and renovating homes in Macomb, Oakland, & Wayne Counties. Company was dissolved as of December 2007.
- Built new homes as in fill lots in various cities
- Rehabbed homes in various city for flips

## 1996 – 2003      **Winner Properties, Inc. ~ Owner**

- Established a full service construction company, diversifying in new home construction, commercial build outs, gymnasium wood floor installs, rehabilitation work, design & build, home inspections, insurance reconstruction, lead paint and asbestos abatement. Trained employees' in work practices, install techniques, lead safe work practices, work safety training, fire safety, hazard communication plan, respiratory program, etc...
- Winner Properties was the largest Home depot installation firm in Michigan and surrounding states handling 33 stores in Michigan for door installation program. Our firm also wrote the Anderson Window install program for Home Depot.
- Winner Properties also worked for Home Depots EXPO Design Center Stores. Our firm handled 3 stores for installation of kitchens, bathrooms, tile, stone, complete remodel work and design build work.
- Winner Properties was the largest Lowes installation firm handling 6 stores in Metro Detroit market. Our firm handled the door installation program for all 6 stores, handled the plumbing install program for 3 stores, and handled installation of tile & cabinets for 3 stores.

## **Other Work Experience:**

- Licensed Associate Realtor
- Truck driver to waste hauling firm - Went on to open my own business
- Owner of Towing & Recovery Service – Built & Established Company & then Sold company
- Owner of Spring & Suspension Shop – Built & Established Company & then Sold company
- Machine Repair Technician for Expert Machine Repair – Went out to open my own business

## **SKILLS, LICENSES, CERTIFICATIONS:**

- Licensed Builder
- Certified Lead Abatement Supervisor
- Certified Lead Inspector & Lead Risk Assessor
- Certified Licensed Asbestos Supervisor Contractor
- Certified Licensed Asbestos Inspector
- State of Michigan Certified Lead Trainer (Worker, Supervisor, Inspector, Risk Assessor)
- State of Michigan Certified Asbestos Trainer (Supervisor / Contractor & Inspector)
- US Environmental Protection Agency EPA RRP Trainer
- State of Michigan Certified Builders Pre-License Trainer
- State of Michigan Certified Real Estate Continuing Education Trainer
- State of Michigan Certified Insurance Adjuster Continuing Education Trainer
- Trainer in OSHA, Mold, Lead, Builders Initial & Con-Ed Classes, Asbestos
- Lifetime Approval By State of Michigan as Trainer for State Building Officials, Inspectors, & Plan Reviewers
- OSHA 10 Hour Trained
- Certified Mold Remediation Specialist
- Certified Home Inspector
- Former Realtor
- Driver License = CDL-A – endorsements C, CY, NT

## **VOLUNTEER AND COMMUNITY INVOLVEMENT:**

- Michigan HBA Remodelers Council = Presenter / Trainer
- Michigan Historical Preservation Network = Trainer / Consultant
- Member of St. Clair Shores Zoning Board of Appeals = *Previous*
- Compassionate Ministries / Building Construction Advisor = *Previous*
- Habitat For Humanity Macomb – Construction Supervisor = *Previous*
- Housing Opportunities for Macomb = *Previous*

# Edward G. Wenz, Jr.

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## Federal Programs Experience in HUD / NSP Work

### **Macomb County Rehab Program – Rehabilitation Specialist**

- Inspect homes for rehabilitation program: building, plumbing, hvac, & electrical
- Inspect homes for both CDBG & HOME Funds for Code & HQS Standards
- Wrote the County Housing Rehabilitation Contractors Manual
- Updated the County Housing Rehab Manual
- SHPO Historical Section 1106 Clearances
- Environmental Reviews
- Wrote Specifications for work on homes – bring to code & emergency repairs
- Wrote specifications for lead abatement work / designed jobs
- Wrote estimates for all specifications on projects
- Ordered Lead Inspection & Risk Assessments as needed for projects
- Assessed projects for Lead Hazards and wrote specification for such work
- Met with homeowner to go thru work specifications and answered questions
- Inspected progress of work & final inspection of all work to meet specifications
- Completed final work on all homes and processed payments
- Wrote a complete rehab specification guide and put it into place for the County
- Designed a rehab tracking process and write up program for the County
- Ran projects for over 50 homes per year
- Projects ranged from rehabilitation, demo, and new build
- NSP Program: Worked to get basic acquisition and rehab outline established

### **City of Pontiac Federal Programs – Construction Manager**

- Wrote City Housing Rehabilitation Contractor Manual
- Updated / Revised the City Housing Rehab Manual
- Reviewed and worked for updating the Program Procurement Manual
- Wrote a complete rehab specification guide and put it into place for the City
- Designed a rehab tracking process and write up program for the City
- Organized and managed utility disconnects for demolition work. NSP & CDBG for City & NSP2 for MI Land Bank
- Worked with city on all water & sewer disconnects to be located and documented
- Organized and administered RFP's for: Rehab Contractors, Demo Contractors, NSP Developers, Realtor Services, Appraiser Services, Board Up Contractors, Lawn & Debris Clean-Up Contractors
- Bid Projects: Emergency Board Up Program, Lawn Mowing & Debris Clean Up Program, Rehab Program, Emergency Demo Program, 2012 Winter Demo Program, Asbestos Inspections, Lead Inspection & Risk Assessment Services
- Signed contract for Board Up Program & Managed over 350+ homes for board up
- Signed contract for Lawn & Debris Clean Up with 84 homes mowed, 1600 yards of debris removed
- Signed contract for Asbestos Inspections and administered over 200 sites
- Signed contract for Lead Inspection & Risk Assessment Services
- Inspected and wrote specs for 14 homes to satisfy HUD findings as a requirement to meet repairs for HUD
- Signed contracts for rehabilitation projects to repair homes required by HUD to clear findings – 14 sites
- Wrote Specs & Bid Emergency Demo Program; signed contracts with 6 contractors for work – demolished 20 homes in 10 days, completed work of 60 homes in 30 days
- Wrote Specs for 2012 Winter Demo Program – Pre-Bid Meeting held on 1/20 with 26 contractors, project is 150+
- Wrote / Revised Energy Upgrade specification for Lighthouse Path Bldg- Commercial Site
- Helped manage all SHPO applications for Historical Section 1106 Clearances on: Rehab & Demo work
- Worked with SHPO to add additional products to be listed as approved materials by State Architect to help have better specifications for rehab of homes.

- NSP Program:
  - Administration for: Acquisition Rehab, Demo, New Build
  - Managed & Signed for sale of properties for City to Developer
  - Administered & Managed all utility retirements / disconnect for Pontiac & Michigan land Bank
  - Revised specifications for NSP Developers to establish higher specifications = expectations
  - Worked to modify and help contractors get NSP 1 Program work done as the system was on hold
  - NSP Developers were guided to get projects back on track and now have done 19 homes in 6 months
  - Pontiac was on NSP slow spending list and now Pontiac is one of S/E Michigan top producers for HUD
  - City of Pontiac became top producing NSP Community in the last 6 months since Ed managed construction processes
  - Managed a huge Historical case and got clearance from SHPO in 30 minutes – 224 Ottawa, Pontiac
  - Managed Historical Sec 1106 Clearances for homes on NSP Program
  - Organized and managed RFP for Rehab Contractors for NSP 3 Program
  - Organized and managed RFP for Realtor Services for NSP Program
  - Wrote and managed RFP for Appraisal Services for NSP Program & sale of CDBG Property
  - Wrote & Bid out Specs for Alarm Systems on all NSP homes – Signed deal for developers
  
- CDBG & HOME Funds
  - Inspect homes for both CDBG, HOME Funds – Code & HQS Standards
  - SHPO Historical Section 1106 Clearances
  - Wrote specifications for work on homes – bring to code & emergency repairs
  - Wrote estimates for all specifications on projects
  - Ordered Lead Inspection & Risk Assessments as needed for projects
  - Met with homeowner to go thru work specifications answered questions
  - Inspected progress for work & final inspection of all work to meet specifications
  - Completed final work on all homes and processed payments

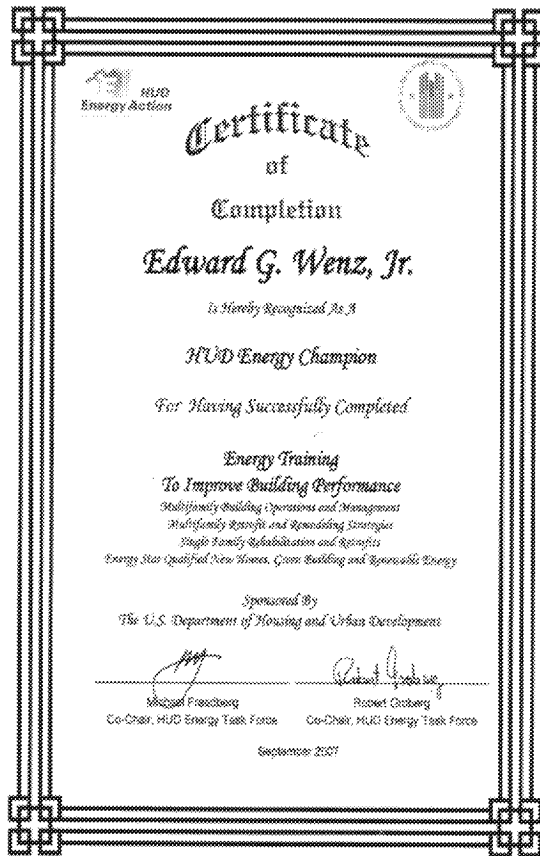
## Attachments – A

- Copy of Michigan Builders License

ROCK SNEYDER GOVERNOR	STATE OF MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS CORPORATIONS, SECURITIES & COMMERCIAL LICENSING BUREAU	L245595
RESIDENTIAL BUILDER LICENSE		
EDWARD GILBERT WENZ, JR 8756 TRENTON DR WHITE LAKE MI 48386		
PERMANENT I.D. NO. 2101186904	EXPIRATION DATE 05/31/2017	AUDIT NO. 2801332
THIS DOCUMENT IS ONLY VALID UNDER THE LAWS OF THE STATE OF MICHIGAN		

ROCK SNEYDER GOVERNOR	STATE OF MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS CORPORATIONS, SECURITIES & COMMERCIAL LICENSING BUREAU	L231721
RESIDENTIAL BUILDER COMPANY LICENSE		
- O. O. - EDWARD GILBERT WENZ, JR INDV# 2101186904		
WINNER INVESTMENT INC DBA/ MICHIGAN INSPECTION CONSULTANTS 8756 TRENTON DR WHITE LAKE MI 48386		
PERMANENT I.D. NO. 2102185620	EXPIRATION DATE 05/31/2017	AUDIT NO. 2789605
THIS DOCUMENT IS ONLY VALID UNDER THE LAWS OF THE STATE OF MICHIGAN		

## Attachment ~ B: Additional Training Certificates



**CUSTOMER TRAINING**

**Radiation Safety and Operation of Niton XRF Analyzers**

This is to certify that **Edward Wenz** has successfully completed the one day Thermo Fisher Scientific Niton Analyzer Manufacturer's Training Course. The topics of this course include radiation safety, monitoring, device operation, and machine maintenance of the Niton XRF Analyzer.

(CIH's - The ABIH Awards 1 CM point, approval # 08-354)

Course date: May 5, 2011  
Location: Romulus, MI  
Certificate Number: 154700380000017rVh0

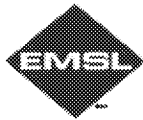
*Sophie Ling*  
Sophie Ling  
Radiation Safety Training Coordinator

*James Blute*  
James Blute, CHP  
Manager of Health and Safety

Thermo SCIENTIFIC



## Attachment ~ B: Additional Training Certificates



### EMSL ANALYTICAL, INC.

Certifies that

**Edward Wenz**

Has Completed Training In

**Mold, Indoor Air Quality and IH Sampling**

EMSL Certificate No. 70016695

Course Date: 98/11/2015

Granted: 98/11/2015

Sponsored by:

EMSL Analytical, Inc.  
200 Route 130 North  
Cinnaminson, NJ 08077  
Phone: (800) 220-3675  
Fax: (856) 786-5875  
[www.emsl.com](http://www.emsl.com)

**Jason Dobranic, Ph.D.**

Vice President of Microbiology and Life Sciences

Environmental, Mold, Bacteria, IAQ, Asbestos, Lead, Forensic and Materials Testing Since 1981



### EMSL ANALYTICAL, INC.

#### Credits and Continuing Education

Indoor Air Quality/Industrial Hygiene Workshop

on

8/27/15

ABIH-Compliant  
ACAC - 8.0 Credits  
BOMI - 8.0 Credits  
FL DBPR - 7 Credits  
HCRC - 1.0 Credit  
Inter NACHI - 8.0 Credits  
NAHI - 8.0 Credits  
ASHI - 8.5 Credits

CRBOH - 1 maintenance point  
NYS Dept of State Home Inspectors  
CRBOH - 1 MP  
NJ Site Remediation Professional Licensing  
Board - 4 TCEs  
NEHA - 6.5 CEC's  
TN Home Inspector Licensing Board - 8 hours

CAHPI  
OAH - 7 CEUs  
CAHPI/BC - 7 MRCs  
CAHPI Alberta - 7 MRCs  
Approved by Florida State  
DBPR 7 Credit Hours

Certificate # 70016695

Issued to: Edward Wenz

Environmental, Mold, Bacteria, IAQ, Asbestos, Lead, Forensic and Materials Testing Since 1981

## Attachment ~ C: Additional Certificates

United States Environmental Protection Agency

This is to certify that

Lead Renovator Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices under EPA Part 61, 61.107 in the following description:

Renovator: Professional Lead-based Paint

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: October 27, 2015

NOT EPCB-100000-1-010  
Accreditation # OCT 14 2015  
Issued On

*Tony Bentley, acting for*  
State Risk, Chief  
Chemicals Management Branch

United States Environmental Protection Agency

This is to certify that

Lead Renovator Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices under EPA Part 61, 61.107 in the following description:

Renovator: Professional Lead-based Paint

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: JUL 11, 2015

NOT EPCB-100000-1-010  
Accreditation # JUL 07 2015  
Issued On

*Maria Klem*  
State Risk, Chief  
Chemicals Management Branch

This is to attest that

has satisfactorily met the requirements of the Michigan Lead Abatement Act of 1995, and is hereby accredited as a

**Lead Renovator Training**

LEAD TRAINING COURSE PROVIDER

TCP number T-0049

This accreditation entitles the named persons to the rights and privileges afforded by the Act, as well as the authority to offer and provide the following training courses leading to certification of individuals engaged in regulated lead-based paint activities in the State of Michigan until August 31, 2016

Worker Initial	Worker Refresher	Supervision Initial	Supervision Refresher	Inspector Initial
Inspector Refresher	Risk Assessor Initial	Risk Assessor Refresher		

**MDHHS** Michigan Department of Health and Human Services

*Michael J. Smith*  
Manager, EPH

August 21, 2015  
Date

Authority: P.A. 380 of 1995, as amended

STATE OF MICHIGAN L263570  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
CORPORATIONS, SECURITIES & COMMERCIAL LICENSING BUREAU  
PROPRIETARY SCHOOL  
LICENSE

MICHIGAN BUILDERS TRAINING, LLC  
2525 AVON INDUSTRIAL DRIVE  
ROCHESTER HILLS MI 48309

PCB-000001-1-010  
8604000877

10/15/2015  
06/30/2015

2015-08  
2309466

THIS DOCUMENT IS NOT A MODEL  
DO NOT REPRODUCE OR DISTRIBUTE

Sponsor Number 744307 Issue Date 11/25/2015 Expiration Date 12/31/2015

State of Michigan  
Department of Licensing and Regulatory Affairs

Michigan Builders Training, LLC

has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1995, as amended, and Section 206 of Title II of the Toxic Substances Control Act to provide the following courses:

Contractor/Supervisor Initial\* Inspector Refresher\*  
Contractor/Supervisor Refresher\*

1312

United States Environmental Protection Agency

This is to certify that

Lead Renovator Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices under EPA Part 61, 61.107 in the following description:

Renovator: Professional Lead-based Paint

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: October 27, 2015

NOT EPCB-100000-1-010  
Accreditation # OCT 14 2015  
Issued On

*Tony Bentley, acting for*  
State Risk, Chief  
Chemicals Management Branch



## Attachments – D:

- Copy of Environmental Licenses

**Michigan Department of Community Health**

**Edward G. Wenz Jr.**  
**Lead Inspector/Risk Assessor**  
**Lead Supervisor**

Cert. number **P-011130**

Annual fee due by **March 31, 2016**

*Appropriate refresher training and exam must be taken to renew this certification before March 31, 2016*

**Healthy Homes Section**

**State of Michigan**  
Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Inspector**

**Edward G. Wenz, Jr.**  
8756 Trenton Drive  
White Lake, MI 48386

Accreditation Number **A42527** Expiration Date **04/05/2016** DOB: **01/08/1966**

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1986, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered **114769**

**State of Michigan**  
Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Contractor/Supervisor**

**Edward G. Wenz, Jr.**  
8756 Trenton Drive  
White Lake, MI 48386

Accreditation Number **A42527** Expiration Date **04/05/2016** DOB: **01/08/1966**

This individual has satisfactorily met or exceeded the requirements of Section 205 of the Toxic Substances Control Act to be accredited in the above discipline.

Accreditation card is not valid if altered **114770**

**OSHA** Occupational Safety and Health Administration **21-004444959**

This card acknowledges that the recipient has successfully completed a 10-hour Occupational Safety and Health Training Course in **Construction Safety and Health**

**EDWARD WENZ, JR.**

**Bryan Renaud** **06/12/2013**

(Trainer name – print or type) (Course end date)

**Michigan Department of Licensing and Regulatory Affairs**  
**Michigan Occupational Safety and Health Administration**  
**Consultation Education and Training Division**

This is to recognize that **EDWARD WENZ, JR.**

Has completed a 10-Hour MIOSHA course in **CONSTRUCTION SAFETY AND HEALTH**

**Bryan Renaud** **6/12/13**

(Instructor) (Date)

Approval # **AP 147**

**LARA**

**MIOSHA Training Institute**

**MIOSHA** Macomb Community College

The MIOSHA Training Institute takes pleasure in presenting this **CERTIFICATE OF ATTENDANCE** to **EDWARD WENZ, JR.** for your active participation in **MIOSHA Construction 10-Hour Course** awarding 1 CEU / 10 Contact Hours **JUNE 12, 2013**

**PATRICIA DUPRESNE** **BRYAN RENAUD**

Course: 3025-1001-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044-1045-1046-1047-1048-1049-1050-1051-1052-1053-1054-1055-1056-1057-1058-1059-1060-1061-1062-1063-1064-1065-1066-1067-1068-1069-1070-1071-1072-1073-1074-1075-1076-1077-1078-1079-1080-1081-1082-1083-1084-1085-1086-1087-1088-1089-1090-1091-1092-1093-1094-1095-1096-1097-1098-1099-1100-1101-1102-1103-1104-1105-1106-1107-1108-1109-1110-1111-1112-1113-1114-1115-1116-1117-1118-1119-1120-1121-1122-1123-1124-1125-1126-1127-1128-1129-1130-1131-1132-1133-1134-1135-1136-1137-1138-1139-1140-1141-1142-1143-1144-1145-1146-1147-1148-1149-1150-1151-1152-1153-1154-1155-1156-1157-1158-1159-1160-1161-1162-1163-1164-1165-1166-1167-1168-1169-1170-1171-1172-1173-1174-1175-1176-1177-1178-1179-1180-1181-1182-1183-1184-1185-1186-1187-1188-1189-1190-1191-1192-1193-1194-1195-1196-1197-1198-1199-1200-1201-1202-1203-1204-1205-1206-1207-1208-1209-1210-1211-1212-1213-1214-1215-1216-1217-1218-1219-1220-1221-1222-1223-1224-1225-1226-1227-1228-1229-1230-1231-1232-1233-1234-1235-1236-1237-1238-1239-1240-1241-1242-1243-1244-1245-1246-1247-1248-1249-1250-1251-1252-1253-1254-1255-1256-1257-1258-1259-1260-1261-1262-1263-1264-1265-1266-1267-1268-1269-1270-1271-1272-1273-1274-1275-1276-1277-1278-1279-1280-1281-1282-1283-1284-1285-1286-1287-1288-1289-1290-1291-1292-1293-1294-1295-1296-1297-1298-1299-1300-1301-1302-1303-1304-1305-1306-1307-1308-1309-1310-1311-1312-1313-1314-1315-1316-1317-1318-1319-1320-1321-1322-1323-1324-1325-1326-1327-1328-1329-1330-1331-1332-1333-1334-1335-1336-1337-1338-1339-1340-1341-1342-1343-1344-1345-1346-1347-1348-1349-1350-1351-1352-1353-1354-1355-1356-1357-1358-1359-1360-1361-1362-1363-1364-1365-1366-1367-1368-1369-1370-1371-1372-1373-1374-1375-1376-1377-1378-1379-1380-1381-1382-1383-1384-1385-1386-1387-1388-1389-1390-1391-1392-1393-1394-1395-1396-1397-1398-1399-1400-1401-1402-1403-1404-1405-1406-1407-1408-1409-1410-1411-1412-1413-1414-1415-1416-1417-1418-1419-1420-1421-1422-1423-1424-1425-1426-1427-1428-1429-1430-1431-1432-1433-1434-1435-1436-1437-1438-1439-1440-1441-1442-1443-1444-1445-1446-1447-1448-1449-1450-1451-1452-1453-1454-1455-1456-1457-1458-1459-1460-1461-1462-1463-1464-1465-1466-1467-1468-1469-1470-1471-1472-1473-1474-1475-1476-1477-1478-1479-1480-1481-1482-1483-1484-1485-1486-1487-1488-1489-1490-1491-1492-1493-1494-1495-1496-1497-1498-1499-1500-1501-1502-1503-1504-1505-1506-1507-1508-1509-1510-1511-1512-1513-1514-1515-1516-1517-1518-1519-1520-1521-1522-1523-1524-1525-1526-1527-1528-1529-1530-1531-1532-1533-1534-1535-1536-1537-1538-1539-1540-1541-1542-1543-1544-1545-1546-1547-1548-1549-1550-1551-1552-1553-1554-1555-1556-1557-1558-1559-1560-1561-1562-1563-1564-1565-1566-1567-1568-1569-1570-1571-1572-1573-1574-1575-1576-1577-1578-1579-1580-1581-1582-1583-1584-1585-1586-1587-1588-1589-1590-1591-1592-1593-1594-1595-1596-1597-1598-1599-1600-1601-1602-1603-1604-1605-1606-1607-1608-1609-1610-1611-1612-1613-1614-1615-1616-1617-1618-1619-1620-1621-1622-1623-1624-1625-1626-1627-1628-1629-1630-1631-1632-1633-1634-1635-1636-1637-1638-1639-1640-1641-1642-1643-1644-1645-1646-1647-1648-1649-1650-1651-1652-1653-1654-1655-1656-1657-1658-1659-1660-1661-1662-1663-1664-1665-1666-1667-1668-1669-1670-1671-1672-1673-1674-1675-1676-1677-1678-1679-1680-1681-1682-1683-1684-1685-1686-1687-1688-1689-1690-1691-1692-1693-1694-1695-1696-1697-1698-1699-1700-1701-1702-1703-1704-1705-1706-1707-1708-1709-1710-1711-1712-1713-1714-1715-1716-1717-1718-1719-1720-1721-1722-1723-1724-1725-1726-1727-1728-1729-1730-1731-1732-1733-1734-1735-1736-1737-1738-1739-1740-1741-1742-1743-1744-1745-1746-1747-1748-1749-1750-1751-1752-1753-1754-1755-1756-1757-1758-1759-1760-1761-1762-1763-1764-1765-1766-1767-1768-1769-1770-1771-1772-1773-1774-1775-1776-1777-1778-1779-1780-1781-1782-1783-1784-1785-1786-1787-1788-1789-1790-1791-1792-1793-1794-1795-1796-1797-1798-1799-1800-1801-1802-1803-1804-1805-1806-1807-1808-1809-1810-1811-1812-1813-1814-1815-1816-1817-1818-1819-1820-1821-1822-1823-1824-1825-1826-1827-1828-1829-1830-1831-1832-1833-1834-1835-1836-1837-1838-1839-1840-1841-1842-1843-1844-1845-1846-1847-1848-1849-1850-1851-1852-1853-1854-1855-1856-1857-1858-1859-1860-1861-1862-1863-1864-1865-1866-1867-1868-1869-1870-1871-1872-1873-1874-1875-1876-1877-1878-1879-1880-1881-1882-1883-1884-1885-1886-1887-1888-1889-1890-1891-1892-1893-1894-1895-1896-1897-1898-1899-1900-1901-1902-1903-1904-1905-1906-1907-1908-1909-1910-1911-1912-1913-1914-1915-1916-1917-1918-1919-1920-1921-1922-1923-1924-1925-1926-1927-1928-1929-1930-1931-1932-1933-1934-1935-1936-1937-1938-1939-1940-1941-1942-1943-1944-1945-1946-1947-1948-1949-1950-1951-1952-1953-1954-1955-1956-1957-1958-1959-1960-1961-1962-1963-1964-1965-1966-1967-1968-1969-1970-1971-1972-1973-1974-1975-1976-1977-1978-1979-1980-1981-1982-1983-1984-1985-1986-1987-1988-1989-1990-1991-1992-1993-1994-1995-1996-1997-1998-1999-2000-2001-2002-2003-2004-2005-2006-2007-2008-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3009-3010-3011-3012-3013-3014-3015-3016-3017-3018-3019-3020-3021-3022-3023-3024-3025-3026-3027-3028-3029-3030-3031-3032-3033-3034-3035-3036-3037-3038-3039-3040-3041-3042-3043-3044-3045-3046-3047-3048-3049-3050-3051-3052-3053-3054-3055-3056-3057-3058-3059-3060-3061-3062-3063-3064-3065-3066-3067-3068-3069-3070-3071-3072-3073-3074-3075-3076-3077-3078-3079-3080-3081-3082-3083-3084-3085-3086-3087-3088-3089-3090-3091-3092-3093-3094-3095-3096-3097-3098-3099-3100-3101-3102-3103-3104-3105-3106-3107-3108-3109-3110-3111-3112-3113-3114-3115-3116-3117-3118-3119-3120-3121-3122-3123-3124-3125-3126-3127-3128-3129-3130-3131-3132-3133-3134-3135-3136-3137-3138-3139-3140-3141-3142-3143-3144-3145-3146-3147-3148-3149-3150-3151-3152-3153-3154-3155-3156-3157-3158-3159-3160-3161-3162-3163-3164-3165-3166-3167-3168-3169-3170-3171-3172-3173-3174-3175-3176-3177-3178-3179-3180-3181-3182-3183-3184-3185-3186-3187-3188-3189-3190-3191-3192-3193-3194-3195-3196-3197-3198-3199-3200-3201-3202-3203-3204-3205-3206-3207-3208-3209-3210-3211-3212-3213-3214-3215-3216-3217-3218-3219-3220-3221-3222-3223-3224-3225-3226-3227-3228-3229-3230-3231-3232-3233-3234-3235-3236-3237-3238-3239-32



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
BUREAU OF CONSTRUCTION CODES  
IRVIN J. POKE  
DIRECTOR

STEVEN H. HILFINGER  
DIRECTOR

April 2, 2012

**\*\*Lifetime Instructor Approval\*\***



Dear Mr. Wenz:

Your application to renew your Instructor Approval has been processed by the Bureau of Construction Codes.

Pending review by the Construction Code Commission, the Bureau of Construction Codes has been granted permission to renew your approval under the following conditions:

1. Instructor standards as defined in the Rules for Act 54, 1986 are maintained.
2. Approval is granted indefinitely for the following categories: Administration, Communication, Plan Review, and Building (Specialty and Technical specific to lead, asbestos and mold related subjects).
3. The commission may withdraw the approval of an instructor when the approval was issued in error or was issued on the basis of incorrect information or when the instructor is found to be in violation of the rules.

The standards set forth in the rules for Act 54, 1986, state that program providers must "establish permanent records of student activities, including course title, and student attendance." Instructors have the responsibility for certifying attendance records. All participants must attend the entire program to receive credit.

**PLEASE NOTE:** Training programs must be approved by the Bureau of Construction Codes before registrants will receive their credited attendance hours. Before conducting training programs, a completed Education and Training Programs Approval Application (Form BCC-1052) must be submitted and approved by the Bureau of Construction Codes. Our attendance form can be found on our website at [www.michigan.gov](http://www.michigan.gov) under Forms then Building Division.

Instructor Identification Number: 2019

Sincerely,

*Kary L. Dare*

Kary L. Dare  
Building Division

KLD/ld

*Providing for Michigan's Safety in the Built Environment*

LARA is an equal opportunity employer  
Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.  
P.O. BOX 30254 • LANSING, MICHIGAN 48908  
[www.michigan.gov/bcc](http://www.michigan.gov/bcc) • Telephone (517) 241-8302 • Fax (517) 241-9570



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
LANSING

STEVE ARWOOD  
DIRECTOR

February 15, 2013

Michigan Builders Training, LLC  
[REDACTED]

Dear Mr. Wenz:

RE: **Sponsor #480**

Your application as a sponsor for the 2013-2015 Calendar Years for real estate nondistance-learning continuing education has been approved. This approval begins on February 14, 2013 and expires on December 31, 2015. **The sponsor approval number above is important and must be referenced in ALL correspondence with the Department.** The following course(s) have been approved:

Course Name	Hours	"L" Course Number
Combo Lead, Asbestos, Mold Awareness	4hrs	M1474
OSHA Fall Protection	2hrs	M1475
EPA Certified Lead Renovator	4hrs	M1476
Mold Awareness -- What you should know	2hrs	M1477
OSHA Lead Awareness	2hrs	M1479
Asbestos Awareness	2hrs	M1478

This approval includes Edward Wenz as instructor(s).

A Schedule and Geographic Location of Classes BCS/LRE-004(01/09) must be submitted before you submit your verification of attendance. Sponsors must submit verification of attendance no later than 5 days after the completion of the course, per Rule 604(8).

Electronic filing of your continuing education course attendance roster file must be a tab delimited text file or an excel file that can be exported from any database you have.

You can find the Schedule and Geographic Location of Classes and Verification of Attendance excel spreadsheet on our website at [www.michigan.gov/bctestesting](http://www.michigan.gov/bctestesting) under the forms drop down menu. If you have any questions, please contact me at (517) 241-9231. Thank you for your cooperation.

LARA is an equal opportunity employer/program.  
Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

BUREAU OF COMMERCIAL SERVICES  
P.O. BOX 30018 • LANSING, MICHIGAN 48909  
[www.michigan.gov/lara](http://www.michigan.gov/lara)

FIS 414 (12/11) Department of Insurance and Financial Services

**Certificate Of Registration For A Continuing  
Education Program Of Study**

PSI  
Michigan CE  
3210 E. Tropicana  
Las Vegas, NV 89121

September 18, 2013

MICHIGAN BUILDERS TRAINING, LLC



Edward Wenz:

Pursuant to Section 1204a(1) to 1204c(6) of the Insurance Code of 1956, as amended, MCLA 500.1204a(1) to 500.1204c(6), the Agent Education Advisory Council or its designee has reviewed the course materials, curriculum, and instructor credentials submitted and recommends to the Director's representative that this program of study be registered:

Course Name: **UNDERSTANDING THE HAZARDS OF HOUSING - COMBO LEAD, ASBESTOS, & M**

Program of Study: **Property & Casualty**

Effective Date: **09-18-2013**

Number of Approved Hours: **3**

Provider Number: **0979**

Life/Health **0**

Property/Casualty **3**

Presentation Method: **Classroom**

Course Number: **63228**

National Designation Program: **No**

Expiration Date: **09-18-2015**

By the granting of this Certificate of Registration, the Director's representative approves the recommendation. The Director may, after Notice and Opportunity for a Hearing, withdraw the registration of a program of study, which does not maintain standards as determined by the Director for the protection of the public. Sales/Marketing hours = 0.

If you disagree with our decision, you may appeal by providing 2 copies of the requested information within 30 days of the date of this letter without any additional fees. However, if you appeal our decision, you must return this document and you may not offer this course until a final disposition is granted.

If you need to contact PSI, please email [MIINSURANCE@PSIEXAMS.COM](mailto:MIINSURANCE@PSIEXAMS.COM).

Sincerely,

PSI Continuing Education Unit



Michigan Department of Insurance and Financial Services

DIFS is an equal opportunity employer/program.

Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

Visit DIFS online at: [www.michigan.gov/difs](http://www.michigan.gov/difs) Phone DIFS toll-free at: 877-999-6442

---

**From:** Stoken, Laura (GOV)  
**Sent:** Monday, February 01, 2016 2:39 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Disaster Recovery Resilience Program

For your determination

---

**From:** Norman Stoerr [<mailto:nstoerr@aidrc.com>]  
**Sent:** Monday, February 01, 2016 2:36 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Cc:** Norman Stoerr <[nstoerr@aidrc.com](mailto:nstoerr@aidrc.com)>  
**Subject:** Disaster Recovery Resilience Program

Good afternoon Lt. Governor Calley,

I'm contacting you to provide you information concerning Adjusters International's Disaster Recovery Resiliency Program.

In 2010, The Department of Homeland Security (DHS) identified resiliency as a national priority. DHS intended to reduce the risk to critical infrastructure, public health and safety by fostering development of preparedness capabilities able to recover from naturally or man-made disasters to the nation's states and cities. Presidential Policy Directives 8 and 21 fully endorse this high level initiative.

Adjusters International (AI) can provide you a Disaster Recovery Resilience Program. Our web-based interoperable, multiple activation program, will assist the state in building a pro-active, readiness, response, recovery, and mitigations program for your state and counties.

AI's program can provide you a detailed risk analysis of the state's resources. Our program will also monitor your resource allocation of personnel, equipment and facilities not only on a daily basis, but also during an emergency situation or activation. The program provides this support using its GIS and real time situational analysis capability. AI's Disaster Recovery Resiliency Program will also guide a municipality, city or county from the initiation of an emergency response, through the closeout of a disaster declaration.

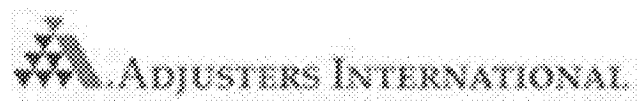
At your convenience, we would like the opportunity to speak with you and or members of your staff to further explain the Disaster Recovery Resilience Program.

Please contact me on the number or e-mail listed below to schedule a GoToMeeting. We will show you some features and further explain the benefits of our program.

Thank you very much sir,

*Norman T. Stoerr  
Disaster Recovery Resiliency Program  
Adjusters International DRC  
125 Wolf Road-Suite 214  
Albany, New York 12205  
Cell: 716-432-9414*

*E-mail: [nstoerr@aidrc.com](mailto:nstoerr@aidrc.com)*



C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

January 29, 2016

Honorable Rick Snyder, Governor Michigan

Honorable Dr. Karen Weaver, Mayor

Honorable Elder Patrick W. Sanders, Pastor New Jerusalem Full Gospel Baptist Church

Greetings,

One of the most forgotten tools in optimizing effective public health strategies is Risk Communications. C. Edwards Concepts Public Health and Development Consulting LLC a nationally recognized leader in comprehensive Public Health consultation is fully qualified and experienced in multiple areas of Risk Communication Disease Intervention and Community Health. Since 2002 we have provided design, development and implementation services for local state and federal governments, non-governmental organizations, and community based organizations, and academic institutions. I am writing in hopes of securing an opportunity to discuss the provision of services for Public Health Consulting including but not limited to Education Awareness and Risk Reduction relative to lead contaminated water in Flint Michigan.

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SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

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Please afford me an opportunity to further discuss our organizations ability to serve as a valued resource for the City of Flint as it works to recover from this Public Health crisis. I will contact you on or before Tuesday February 2, 2016 as a follow up to this correspondence. Should you wish to reach me prior to that time you are welcome to do so at 318.519.4802 or via email: [charletteedwards@gmail.com](mailto:charletteedwards@gmail.com). Thanks so much for your consideration I look forward to speaking with you and serving your community. With kind regards I am ...

Committed to Health and Wellness

*Charlette Edwards*

Charlette Edwards, MSPH

SHREVEPORT, LOUISIANA



C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

CHARLETTE EDWARDS, MSPH



**Summary**

For more than 25 years, I have been successfully involved in the work of problem resolution. Via Administrative remedy, I have worked with agencies under the auspices of the federal government applying rules codified by the Codes of Federal Regulation and Revised Statutes from various states. To this end, I have attained an uncanny ability to establish, develop and maintain outstanding rapports with persons from various backgrounds and diverse cultures. This ability is only surpassed by my never-ending commitment to (1). Facilitate the accomplishments of my organizations described goals (2). Provide assistance in designing strategic plans of action to satisfy determined objectives (3). Utilize and employ, clear, decisive, leadership abilities needed to complete specific task or multifaceted problems.

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Environmental Health Sciences Major

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**Bachelor of Science**, 1999  
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**Southern University**  
Shreveport, LA  
**Associates of Science**, 1990  
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**Relevant Experience:**

**National Science Foundation – Wiley College**  
Marshall, Texas  
**STEM Project Manager**

- Provide technical guidance and assistance relative to scientific program planning

SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

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Arlington, Texas

**Environmental Consultant**

- Curriculum Development
- Instructional Design
- Serve as subject matter expert in Environmental Toxicology and Health Impacts

**University of Nevada Las Vegas**

Las Vegas, Nevada

**Visiting Professor**

- Provide instruction in Environmental Sciences
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- Evaluate student mastery of skills and competencies required by course outcomes.

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**Environmental Policy Intern**

- Designed municipal efforts to network with community and its' leaders
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- Developed of medical monitoring model and program for the city of New Orleans

SHREVEPORT, LOUISIANA

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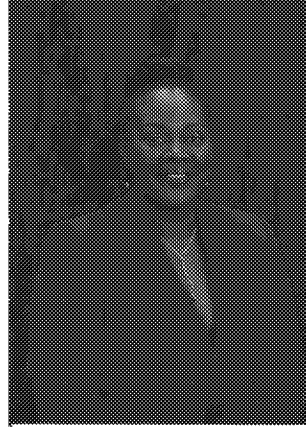
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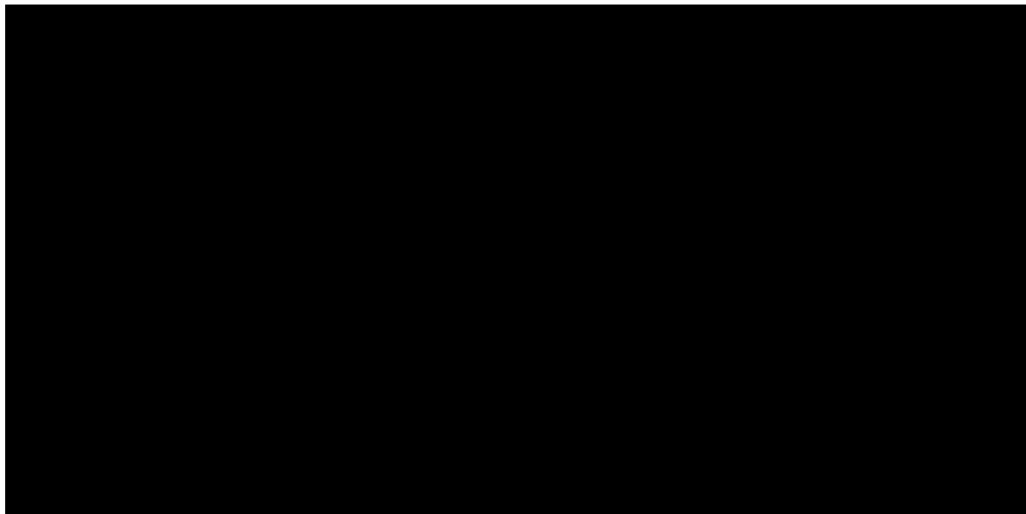
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C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.



CONTACT:

CHARLETTE EDWARDS, MSPH



SHREVEPORT, LOUISIANA

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**From:** Stoken, Laura (GOV)  
**Sent:** Monday, February 01, 2016 2:45 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Public Health Consulting  
**Attachments:** C Edwards Concepts Portfolio Dr. Karen Weaver.pdf

For your determination

**From:** Charlette Edwards [<mailto:charletteedwards@gmail.com>]  
**Sent:** Monday, February 01, 2016 1:15 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>; [mayor@cityofflint.com](mailto:mayor@cityofflint.com); [elidersanders@att.net](mailto:elidersanders@att.net)  
**Cc:** [saunder1@michigan.gov](mailto:saunder1@michigan.gov); Charlette Edwards <[charletteedwards@gmail.com](mailto:charletteedwards@gmail.com)>  
**Subject:** Public Health Consulting

Greetings,

With more than 25 years of professional experience spanning Politics, Administrative Law, and Public Health, I write you in hopes of securing an opportunity to serve you and your community through the provision of Public Health, Community Outreach and Risk Communications services.

Your consideration is greatly appreciated. Charlette Edwards

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SHREVEPORT, LOUISIANA



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- Evaluate student mastery of skills and competencies required by course outcomes.

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SHREVEPORT, LOUISIANA

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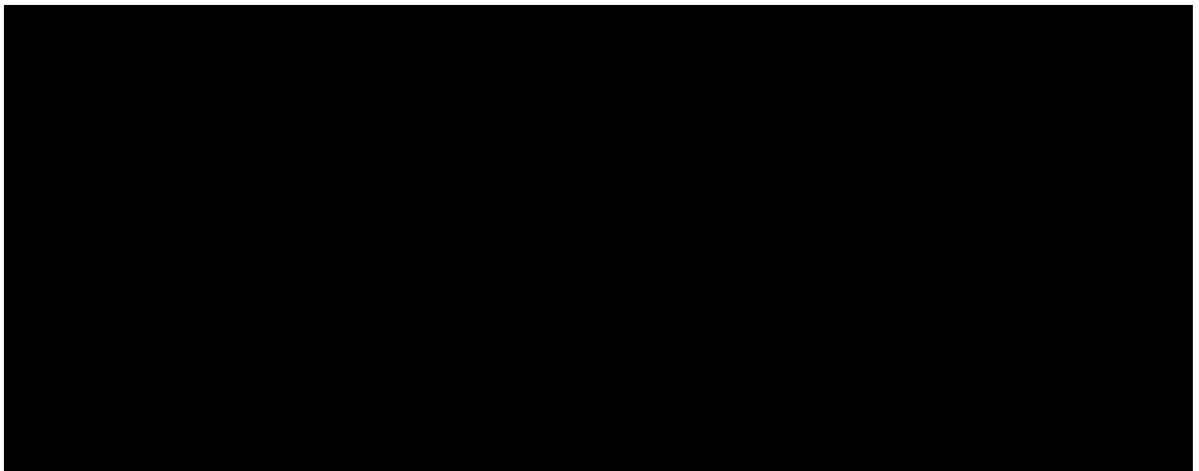
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HEALTH AND DEVELOPMENT CONSULTING LLC.



CONTACT:

CHARLETTE EDWARDS, MSPH



SHREVEPORT, LOUISIANA

---

**From:** Baird, Richard (GOV)  
**Sent:** Monday, February 01, 2016 11:10 PM  
**To:** Sachs, Tori (GOV); Creagh, Keith (DEQ)  
**Subject:** Fwd: Fw: Message from Dennis Cawthorne

These keep coming out of the woodwork. I wonder if we have/need someone from Keith's team separating the "wheat from the chaffe".

Rich

*Sent from my Verizon Wireless 4G LTE DROID*

----- Forwarded message -----

From: Dennis Cawthorne <[DCawthorne@kelley-cawthorne.com](mailto:DCawthorne@kelley-cawthorne.com)>  
Date: Feb 1, 2016 1:45 PM  
Subject: Fw: Message from Dennis Cawthorne  
To: "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>  
Cc: [rbaird003@hotmail.com](mailto:rbaird003@hotmail.com)

Rich:

I copied Vogel-Brown on our correspondence and here is their latest response. Note the second paragraph in which they again say their receiving a "Lab Report" would be helpful.

I presently have no vested interest in what Vogel-Brown is proposing but, from the outside, their potential ability to provide near term drinkable, clean water appears interesting and perhaps merits your team's interest, as well.

Dennis Cawthorne

---

**From:** Richard Brown <[rbrown@vogelandbrown.com](mailto:rbrown@vogelandbrown.com)>  
**Sent:** Saturday, January 30, 2016 5:22 PM  
**To:** Dennis Cawthorne  
**Subject:** RE: Message from Dennis Cawthorne

Dear Dennis,

This is great; now we need to come through. It sounds as though they've put a "Tiger Team" in place and just getting organized.

I have our engineers working on the concept that is focused on near term provision of drinkable, clean water. The lab report will ensure we're proposing the correct solution. There are several ways we can go about this, but I propose a Demo as a Proof of Concept to show that our system actually works.

We still have not been able to contact our large scale engineer/patent holder, but as soon as we do I'll let you know where we stand and a proposed schedule.

I'm also in contact with one of our associate contractors that does large scale epoxy coating of water pipes without have to remove or did them up. I should have more on them Monday.

Thanks for your support.

Richard Brown

---

**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, February 02, 2016 8:39 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** Company

For your determination

---

**From:** info [mailto:info@rcunique.com]  
**Sent:** Monday, February 01, 2016 8:02 PM  
**To:** Stoken, Laura (GOV) <Stokenl@michigan.gov>  
**Subject:** Re: Re: RE: Executive Office of the Governor

Dear Laura ,

I read online that the plumbers union were helping all the flint residents changing faucets and install filters .pls note that we can provide our equipment and technique support for free for flint residents ,but we will need the plumber union to do the cleaning process ,waiting for your reply .thanks

2016-02-01

---

**Best regards!**

**Melia Tang**

**19295 E .Walnut Dr.North #H**  
**City of Industry.Los Angeles.CA 91748**  
**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: [www.rcunique.com](http://www.rcunique.com)**  
**Email:info@rcunique.com**

---

发件人 : "info" <[info@rcunique.com](mailto:info@rcunique.com)>  
发送时间 : 2016-02-01 11:41  
主题 : Re: RE: Executive Office of the Governor  
收件人 : "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
抄送 :

Dear Laura ,

Thanks for your reply .please take a looking in our website .we are speciallize in clean water pipes for residents area .with our technology ,each single house will take around 2-3 hours to clean up all the pipes lines .no need any repipe or construction .right now we still serve Los Angeles .but if you need our help .we can certainly send someone to Flint city to help you .i think you are aware that the faucet filter won't be working so well if the residents still have dirty water pipes .they still can't get clean water for shower and other daily usage water as well .

please take a look in a website .and let me know how we can help .thanks

[www.rcunique.com](http://www.rcunique.com)

2016-02-01

**Best regards!**

**Melia Tang**

**19295 E .Walnut Dr.North #H**  
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**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: [www.rcunique.com](http://www.rcunique.com)**  
**Email:info@rcunique.com**

---

发件人 : "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>

发送时间 : 2016-02-01 11:31

主题 : RE: Executive Office of the Governor

收件人 : "info" <[info@rcunique.com](mailto:info@rcunique.com)>

抄送 :

Thank you Melia,

Please provide specific details so I can forward it to the appropriate person at the State Emergency Operations Center for review.

Thank you,

Laura

---

**From:** info [<mailto:info@rcunique.com>]

**Sent:** Monday, February 01, 2016 2:22 PM

**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>

**Subject:** Re: Executive Office of the Governor

Dear Laura,

Thanks for your reply ,the reason I am contacting you is that I think my company can help the governor with this issue in the final stage .for flint water,there are still few steps to solve the issue .first,you government need to provide clean water source ,second ,you will need to repipe or clean all those corroded water pipe lines .third stage ,we may be able to help with our technology .as we all know how long and how expensive it is gonna take for repiping for each house ,if the water pipes are not so corroded ,we are able to clean the water pipes for residents .in this way ,they will get your clean water .let me know how you think about it ,I am waiting for your further reply .thanks .

2016-02-01

---

**Best regards!**

**Melia**

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**Tel:626 964 6612**

**Fax:626 964 6609**

**Web: www.rcunique.com**

**Email:info@rcunique.com**

---

**发件人 :** "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>

**发送时间 :** 2016-02-01 11:11

**主题 :** Executive Office of the Governor

**收件人 :** "Melia T" <[info@rcunique.com](mailto:info@rcunique.com)>

**抄送 :**

Dear Melia T,

Thank you for your recent correspondence sent to Governor Rick Snyder. As a member of Governor Snyder's staff, I am responding on his behalf.



The health and welfare of Flint residents is the top priority. Governor Snyder's focus is on getting residents the help they need and the response they deserve. He wants to ensure Flint residents have access to clean, safe drinking water. Safe water as well as filters are being delivered door to door and are also available at designated locations throughout the city.

The Governor created a bipartisan, independent task force to review all state, city and federal actions concerning Flint water and making recommendations for the future. We're focused at solving the immediate problems, and also addressing long-term needs. The Flint Water Interagency Coordinating Committee will bring together a wide range of experts to work on long-term solutions to the Flint water situation and ongoing public health concerns affecting residents.

Governor Snyder declared a state of emergency, requested federal assistance, and activated the Michigan National Guard. President Obama granted an emergency declaration, providing \$5 million for water, water filters, filter replacements and water test kits. Congress can approve additional funding. The Governor had also requested from the President a major disaster declaration, which was denied based on the legal requirement that under the Stafford Act disaster relief is available only for natural events, fires, floods, or explosions. The state is now appealing the disaster declaration denial.

The top priority of response efforts is to ensure residents have access to safe, clean drinking water. Residents should install filters to their taps to ensure they have immediate, ongoing access to safe water. It is important to follow installation and maintenance instructions for filters and replacement cartridges. There are five water resource centers, open seven days a week from 9 a.m. to 9 p.m. at Flint fire stations. There are water resource teams going door-to-door to ensure every resident has a water filter and additional water resources.

- If you want to donate or volunteer to help the people of Flint, visit: [www.helpforflint.com](http://www.helpforflint.com).

Since the Governor's emergency declaration we have distributed 207,055 cases of bottled water, nearly 37,342 filters, and 30,801 water testing kits. When installed and maintained properly, water filters remove 99 percent of lead in water. Residents are urged to use filtered water for drinking, food preparation, brushing teeth and watering pets. Unfiltered water may be used for bathing and cleaning.

For a Flint Water timeline, please visit [CLICK HERE](#).

Friday, January 29 Governor Snyder signed legislation bringing \$28 million to immediately help families in Flint with lead testing, treatment and other emergency services. The funding was part of a multi-point relief package the governor outlined last week during his state of the state address to the Michigan Legislature.

This is the second emergency supplemental funding bill allocated to assist the city of Flint this fiscal year. A previous \$9.3 million package was approved in October 2015 to reconnect Flint to the Detroit Water and Sewerage Department, provide filters and water testing to residents, aid in follow-up health services for children and assist with plumbing inspections at schools and health facilities.

House Bill 5220, sponsored by state Rep. Phil Phelps and approved unanimously in both the House and Senate will help ensure Flint residents have access to safe, clean drinking water while helping to do the following:

- Supply free bottled water, faucet filters, and testing kits for Flint residents;
- Put nine nurses in local schools to monitor student health and well-being;
- Provide better nutrition for students and infants through WIC and in-school nutrition programs;
- Replace fixtures in schools, daycares, nursing homes and hospitals;
- Provide for an infrastructure study using independent experts;
- Treat any children who have high lead levels in the blood, using diagnostic testing, nurse visits and environmental assessments in the home;
- Provide additional community education opportunities within the Genesee County Health Department;
- Compensate the Michigan National Guard's work to support water distribution;
- Assist with home lead abatement costs;
- Help the City of Flint with utility issues;
- Provide operational funding for the Flint Interagency Advisory Committee.

The funding bill totals \$28 million with \$22.6 million from the general fund. The remaining \$5.4 million comes from a combination of federal and restricted funds. It is now Public Act 3 of 2016.

Governor Snyder will propose a long-term funding solution to address the ongoing needs of Flint in his Feb. 10 formal budget recommendation. Long-term health monitoring for children exposed to the water and potential replacement of water infrastructure and service lines will be addressed through the governor's traditional budget recommendation, which will be shared on Feb. 10.

We will continue to work to improve the water situation in Flint. Community members and local officials are working together to make sure we hear and respond to concerns.

Thursday, January 28 a plan to recycle the thousands of plastic bottles being distributed during the Flint water crisis. The plan includes drop-off sites for recyclables and increased promotion of the curb side pickup already offered to Flint residents. [To learn more about the recycling plan in Flint, click here.](#)

For updates, please visit [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater).

Thank you, again, for taking the time to share your concerns with our office. Should you have any further comments, questions or concerns regarding this or any other state-related matter, I've included my contact information below.

Sincerely,

Laura Stoken  
Constituent Relations Division  
Executive Office of the Governor, Rick Snyder  
517.335.7858 (o)

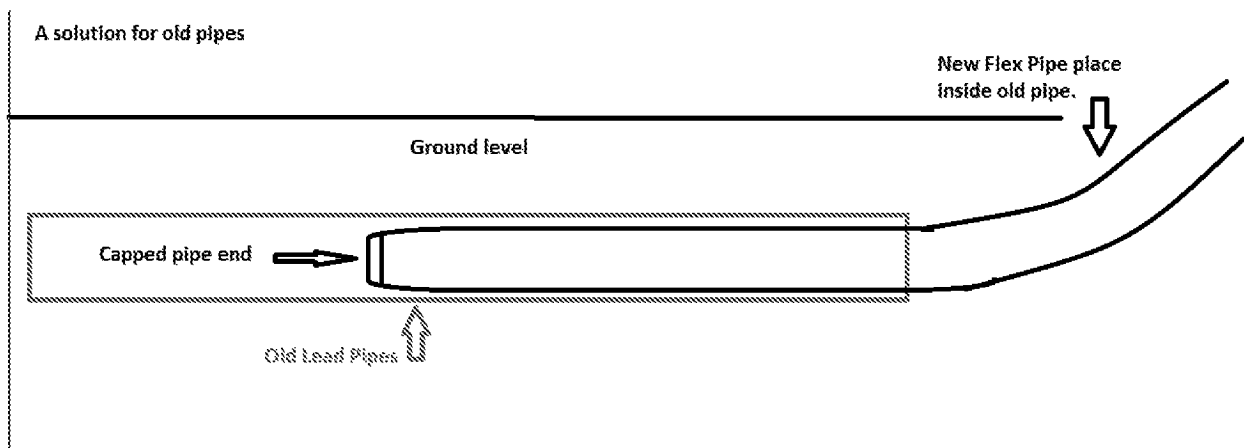
Greetings;

While I am not an engineer I have come up with a solution for the Flint water line replacement issues. The concept came from remembering how new natural gas lines were being placed this past summer. The lines had a flex to them and where placed in holes bored at an angle underground the running horizontally.

Using a similar concept use a flex pipe that is smaller than the inside diameter of the old pipe. the end that is inserted is capped to protect the inside of the new pipe while it is sliding the old pipe.

This concept can be used for main and feeder lines.

See Diagram below for example:



It is my belief that this would greatly reduce the time and expense needed to repair and or replace the old toxic water lines. The slightly smaller lines will slightly reduce the rate of flow but the speed which it could be greater than digging up the old lines.

Please consider this as a quicker solution to the issue that has arisen in Flint.

Brian Storace  
Owosso,MI

---

**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, February 02, 2016 10:08 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint Water solution suggestion  
**Attachments:** flint pipe solution.pdf

For your determination

---

**From:** B Storace [<mailto:brs2home@yahoo.com>]  
**Sent:** Friday, January 22, 2016 3:51 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Subject:** Fw: Flint Wat solution suggestion

2nd attempt first was kicked back

----- Forwarded Message -----

**From:** B Storace <[brs2home@yahoo.com](mailto:brs2home@yahoo.com)>  
**To:** "brian.calley@michigan.gov" <[brian.calley@michigan.gov](mailto:brian.calley@michigan.gov)>  
**Sent:** Wednesday, January 20, 2016 8:13 PM  
**Subject:** Flint Wat solution suggestion

Mr. Calley;

The share an opinion system was not working tonight for Govenor Snyder. I was trying to pass a long a solution I came up with for the toxic Flint pipes. I have a PDF attached explaining the solution. If you coould please pass it along to anyone who will find it useful it solving the issues.

Best regards  
Brian Storace  
1709 N. M 52  
Owosso, MI 48867

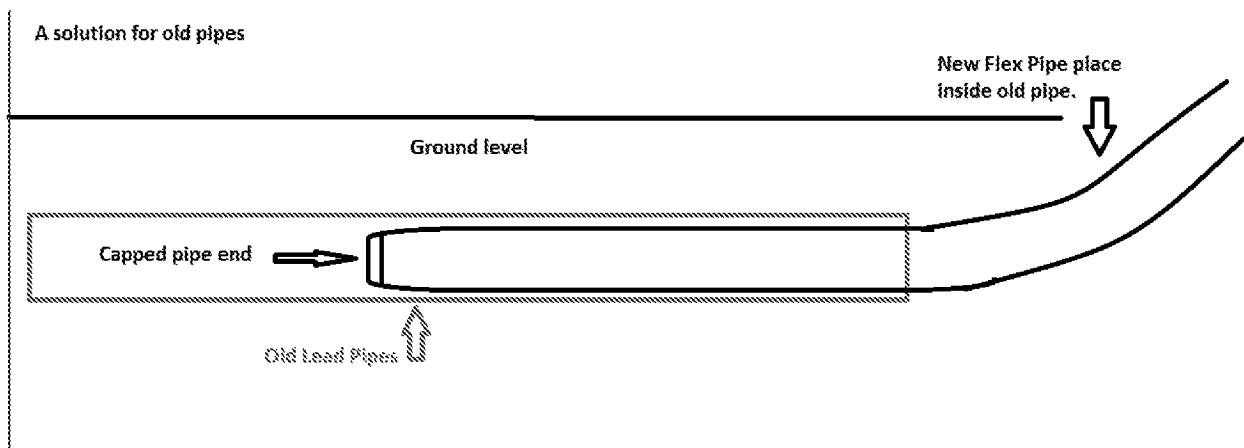
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Using a similar concept use a flex pipe that is smaller than the inside diameter of the old pipe. the end that is inserted is capped to protect the inside of the new pipe while it is sliding the old pipe.

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Brian Storace  
Owosso,MI

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**From:** McBride, Bill (GOV)  
**Sent:** Tuesday, February 02, 2016 1:06 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: IBWA Letter for Governor Snyder  
**Attachments:** Snyder Flint letter 012916.pdf

---

**From:** James Toner [<mailto:JToner@bottledwater.org>]  
**Sent:** Monday, February 01, 2016 7:46 AM  
**To:** McBride, Bill (GOV) <[mcbrideb@michigan.gov](mailto:mcbrideb@michigan.gov)>  
**Subject:** IBWA Letter for Governor Snyder

Bill,

I hope this finds you well and that you are holding up with everything going on regarding Flint. It's been a while since we have talked but I was always impressed with all the individuals in Governor Snyder's office that cover water issues. So, I imagine you have things well in hand.

I wanted to get this letter from IBWA to the Governor to let him know the bottled water industry is doing all we can and we stand ready to assist in any way possible moving forward.

Please let me know if you have any questions or if I can be of further assistance.

JP

James P. Toner, Jr.  
Director of Government Relations  
International Bottled Water Association (IBWA)  
1700 Diagonal Road  
Suite 650  
Alexandria, Virginia 22314  
703.647.4616 Direct  
703.683.5213 Main  
703.683.4074 Fax

Follow IBWA on





1700 Diagonal Road, Suite 650  
Alexandria, VA 22314  
Ph: 703-683-5213  
Fax 703-683-4074  
Web: [www.bottledwater.org](http://www.bottledwater.org)

January 29, 2016

The Honorable Rick Snyder  
Governor of Michigan  
P.O. Box 30013  
Lansing, MI 48909

Dear Governor Snyder,

The International Bottled Water Association (IBWA) would like to take this opportunity to offer our assistance to you and your administration in responding to the recent water emergency in Flint, Michigan. Our members are very familiar with the logistics of responding to events such as natural disasters, water main breaks, and other incidents that can compromise public water systems. IBWA therefore appreciates the recent efforts undertaken by the state, the city of Flint, and third parties to ensure that citizens receive clean, potable water during this significant crisis. Over the years, IBWA has had several opportunities to discuss various water issues with your staff and we have always been impressed with their knowledge and understanding of critical water infrastructure matters.

The bottled water industry is always there to help during a natural disaster or other emergency situation. And every year, IBWA members respond to requests -- both big and small -- to provide bottled water to those in need. In Flint, IBWA members immediately stepped forward to reroute trucks and coordinate with local suppliers to provide citizens with safe, clean, bottled water when the public water system was found to be compromised. So far, IBWA members have taken the following actions to help provide the citizens of Flint with safe drinking water:

- Donated over 1.5 million bottles of bottled water.
- Coordinated efforts with emergency relief partners such as Convoy of Hope and the Food Bank of Eastern Michigan.
- Worked with other bottled water retailers and bottlers to ensure approximately 10,000 Flint public school students have access to clean, safe water.

IBWA is the national trade association that represents all segments of the bottled water industry, including spring, mineral, purified, artesian, and sparkling. Founded in 1958, IBWA member companies include water producers, distributors, and suppliers throughout the United States, including several companies conducting business in Michigan. While we represent companies of all sizes, the vast majority of our members are small, locally-owned companies, with 60 percent reporting less than \$2.5 million in annual gross sales, and 90 percent reporting less than \$10 million in annual gross sales. IBWA's mission is to serve the members and the public by championing bottled water as an important choice for healthy hydration, and promoting an environmentally responsible and sustainable industry.

While the conditions associated with the situation in Flint continue to be addressed, please know that the bottled water industry is always ready to help in any way to assist in providing safe, clean, healthy water.

Please contact me should you have any questions or if we can be of any further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Joe Doss".

Joe Doss  
President and CEO





1700 Diagonal Road, Suite 650  
Alexandria, VA 22314  
Ph: 703-683-5213  
Fax 703-683-4074  
Web: [www.bottledwater.org](http://www.bottledwater.org)

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Please contact me should you have any questions or if we can be of any further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Joe Doss".

Joe Doss  
President and CEO

---

**From:** Weise, Kevin (MSP)  
**Sent:** Tuesday, February 16, 2016 9:52 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** FW: Flint water problems.  
**Attachments:** IMG\_0001.JPG; IMG\_0009.JPG; ReportViewer.pdf; water testing2-6.pdf

Another one. I'm not a scientist, but this looks like it may have some potential.

Kevin

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Scott, Allison (GOV)  
Sent: Tuesday, February 16, 2016 9:46 AM  
To: Weise, Kevin (MSP)  
Cc: Baird, Richard (GOV)  
Subject: FW: Flint water problems.

For your review

From: Jackie Goforth (US - Assurance) [mailto:jacalyn.s.goforth@pwc.com]  
Sent: Tuesday, February 16, 2016 9:33 AM  
To: Snyder, Rick (GOV) <Rick.Snyder@michigan.gov>  
Cc: Richard L. Baird <rbaird003@hotmail.com>; Scott, Allison (GOV) <scotta12@michigan.gov>  
Subject: Fwd: Flint water problems.

Rick,

First, let me say that my thoughts and prayers have been with you and your team. I can't even imagine the heartache you are experiencing over this situation.

You know how friends are, we can't help but try to see what ideas we can come up with to help provide some type of solution. One my High School friends thinks she and her family have one.

It is a Michigan based company that has a water filtration solution. Below is the information he shared with Debbie Stabenow, you may have already seen this, but in case you haven't I thought I would pass it along.

I can't think of a person better suited to lead us all through this situation. Thank you for your balanced and thoughtful leadership.

Kindest Regards,

Jackie

----- Forwarded message -----

From: Marybeth Novitsky <mbmills989@gmail.commailto:mbmills989@gmail.com>>

Date: Mon, Feb 15, 2016 at 7:54 PM

Subject: Fwd: Flint water problems.

To: jacalyn.s.goforth@us.pwc.com<mailto:jacalyn.s.goforth@us.pwc.com>, jacalyn.s.goforth@pwc.com<mailto:jacalyn.s.goforth@pwc.com>

Cc: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Jackie -

Here is the letter that Joe sent to Senator Stabenow. Since then, the Merlin was installed at St Mary's church to supply water for the homeless, in their shelter. The next Merlin will be installed at St Luke's Women's and Children's Center.

Thank you for your efforts.

We appreciate it.

Marybeth

----- Forwarded message -----

From: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Date: Thu, Jan 28, 2016 at 12:45 PM

Subject: Flint water problems.

To: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Good Morning Senator.

Please take the time to read this—WE CAN HELP--

This is Joe Novitsky, Architect and inventor of a water purifier that can eliminate or minimize the bottled water eco disaster pending in Flint.

We have been studying the problem, testing the water, and watched you last night on Rachael's show.

YOU DID GREAT! You are the ONLY one that understands the problem right now—even Rachael is not as clear as you on the solution.

Yes, we need filtered water and no one is ever going to dig up the entire City—the pipes will re-coat, and the new supply from Lake Huron will be complete within 18 months and the City system will again be healthy, but what to do until then?

We have a plan.

Of the 100K residents affected we estimate 25,000 households, and 14,000 businesses, based on information taken from the internet.

Each household of 4 needs 5 gallons per day for drinking and cooking.

We can service this need with approximately 300 units, distributed across the City with the HELP OF the COMMUNITY, and that is where you come in. These Places distributing water must be relieved from paying for the water being distributed. If that can be accomplished, we can solve this 18 month problem for about \$2.5M—FAR LESS than any other proposed effort we have heard about.

We would recommend filtered shower heads, ( about \$50 each), maybe for the clothes washer as well, and one Merlin Eco Solutions unit for about 80-100 homes ( one unit / station per every three blocks), at \$2,000 each, installed by currently unemployed technicians and Vets- that will be paid to do this. We could distribute in 5 gallon camping containers, and each resident would have to lug their daily water no more than a block and a half. It's a pain – but what other REAL choice do we have? The filters they are distributing now are good for 100 gallons, untested, and again an eco-disaster in and of themselves. Our lead filters do not have to be changed for up to 10,000 each and the first primary filter is ceramic and can be cleaned re-used for as many as half a million gallons each!

This same equivalent in bottled water equals 1,250,000 bottles spent PER DAY!! The raw cost, ( \$1/bottle) and associated cost of the current campaign are certainly not sustainable nor acceptable. Have you ever tried to shower with a bottle of water?

Please see the Flint water test results attached. A photo of one that was being installed in a Flint shelter is also attached. The two samples in the other photos are from Michigan Works!, just down the street from your Office, before and after purifying.

Our website is: [www.merlinecosolutions.com](http://www.merlinecosolutions.com)<<http://www.merlinecosolutions.com>>

We are currently working on getting one or two installed at St. Mary's Church currently servicing the bottle distribution, homeless shelter and Michael's Soup Kitchen. This will make an immediate contribution and difference. We did this with funds from GoFundMe site and contributions! (see attached). By the time we get something going with you, you will have their support as we took their water samples yesterday and they are being tested today. Deacon Paul is our contact there. We are currently attempting to help Dr. Mona as well----

FYI—Stanford University Medical Staff, Dr. Weiss, has endorsed this unit and science and Michigan State Chemistry and Biology Labs and Students will be monitoring the units we install to safeguard the residents and process. National Testing Labs have been the Lab we are using to date., (see attached).

I can be reached and will come demonstrate and show off our unit and results whenever you have time – if you are inclined to help us.

Thanks for the time--- and your awareness--- and focus on the solution—

Sincerely,

Joseph S. Novitsky, AIA  
Merlin Eco Solutions  
O (248) 433-2030<tel:%28248%29%20433-2030>  
M (586) 995-2170<tel:%28586%29%20995-2170>  
Joe@JSN-AIA.com<mailto:Joe@JSN-AIA.com>  
Skype: JoeN-AIA

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[<http://static.avast.com/emails/avast-mail-stamp.png>]<<http://www.avast.com/>>

This email has been checked for viruses by Avast antivirus software.  
[www.avast.com](http://www.avast.com)<<http://www.avast.com/>>

----- Forwarded message -----

From: Charles Chervenka <cjchervenka@gmail.com<mailto:cjchervenka@gmail.com>>  
To: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>  
Cc:  
Date: Tue, 12 Jan 2016 20:36:17 -0500  
Subject: Fwd: Lynn posted an update on "Water Purifier for Mission of Hope"  
Here's the site for funding. Just click on it.  
To get the test data google Merlin Eco Solutions and then click on "test results" at the top of the page.  
CJC

----- Forwarded message -----

From: Lynn via GoFundMe <messages@gofundme.com<mailto:messages@gofundme.com>>  
Date: Tue, Jan 12, 2016 at 9:56 AM  
Subject: Lynn posted an update on "Water Purifier for Mission of Hope"  
To: cjchervenka@gmail.com<mailto:cjchervenka@gmail.com>

Hi Charles A new update has been posted to Water Purifier for Mission of Hope Thank you to all who've donated so far!  
Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't nee...

[<https://febc376daf6131a28181-3721cc30b0d63259b2211381d1431a50.ssl.cf1.rackcdn.com/logo-email-v5@2x.png>]

Charles, I posted an update on

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<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6EVNUeIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6EVNUeIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>

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View Campaign

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dcta\\_button%26utm\\_campaign%3Dupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dcta_button%26utm_campaign%3Dupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>

[[https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293\\_1452465809.8834.png](https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293_1452465809.8834.png)][http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>

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Sent from GoFundMe's Headquarters  
PO Box 717798 San Diego, CA 92171

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----- Forwarded message -----

From: Charles Chervenka <cjchervenka@gmail.com<mailto:cjchervenka@gmail.com>>

To: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Cc:

Date: Tue, 12 Jan 2016 20:36:17 -0500

Subject: Fwd: Lynn posted an update on "Water Purifier for Mission of Hope"

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To get the test data google Merlin Eco Solutions and then click on "test results" at the top of the page.

CJC

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[<https://febc376daf6131a28181-3721cc30b0d63259b2211381d1431a50.ssl.cf1.rackcdn.com/logo-email-v5@2x.png>]

Charles, I posted an update on

Water Purifier for Mission of Hope

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>

Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and

the sooner we do, the sooner the mission won't nee...

#### View Campaign

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dcta\\_button%26utm\\_campaign%3Dupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dcta_button%26utm_campaign%3Dupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>

[[https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293\\_1452465809.8834.png](https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293_1452465809.8834.png)]  
<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>

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Sent from GoFundMe's Headquarters  
PO Box 717798 San Diego, CA 92171



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**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166

(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349706****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw, Tap Water**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	1.20*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	34.0	1	1/19/2016 10:30	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	5.000*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	9.100*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	0.850*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	10.00	1	1/19/2016 10:30	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.280*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 10:30	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.018	1	1/19/2016 10:30	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	2.6	1	1/19/2016 10:30	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016

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## ANALYTICAL REPORTS

SAMPLE CODE: 349706

1/22/2016

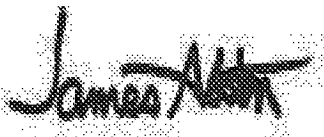
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	15	1	1/19/2016 10:30	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.520	1	1/19/2016 10:30	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**ANALYTICAL REPORTS****SAMPLE CODE: 349707****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw. Filtered through Purifier  
**Source City:** Flint  
**Source State:** MI

**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	ND	1	1/19/2016 10:30		1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30		1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	0.002	1	1/19/2016 10:30		1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	2.2	1	1/19/2016 10:30		1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30		1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	ND	1	1/19/2016 10:30		1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	7.10	1	1/19/2016 10:30		1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	1	1/19/2016 10:30		1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.006	1	1/19/2016 10:30		1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	ND	1	1/19/2016 10:30		1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016

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## ANALYTICAL REPORTS

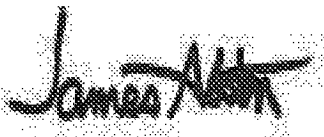
SAMPLE CODE: 349707

1/22/2016

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	32	1	1/19/2016 10:30		1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**ANALYTICAL REPORTS****SAMPLE CODE: 349708****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** Flint River Water (Flint River - Downtown)**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	0.12	1	1/19/2016 11:00	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	79.0	1	1/19/2016 11:00	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	0.002	1	1/19/2016 11:00	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	0.280	1	1/19/2016 11:00	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	28.00	1	1/19/2016 11:00	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.032	1	1/19/2016 11:00	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 11:00	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	3.3	1	1/19/2016 11:00	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016

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## ANALYTICAL REPORTS

SAMPLE CODE: 349708

1/22/2016

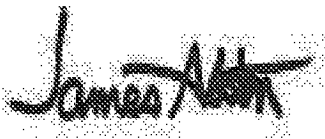
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	34	1	1/19/2016 11:00	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.007	1	1/19/2016 11:00	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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ANALYTICAL REPORTS

SAMPLE CODE: 350014

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #1  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	520*	A6 1	1/27/2016 13:53		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	66*	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350015  
2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #2 Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	2	A6	1	1/27/2016 13:53	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350016

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: Flint River (Raw) #3  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	390	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

- A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.
- Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350017

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: Flint River (Purified) #4  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

- A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.
- Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350018

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #5  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1200*	A6 1	1/27/2016 15:08		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350019  
2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #6 - Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	<1	1	1/27/2016 15:10		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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**From:** Bliss, Mike (DTMB)  
**Sent:** Tuesday, February 16, 2016 9:53 AM  
**To:** Brownlee, Jeff (DTMB); Calahan, Heather (DTMB)  
**Subject:** RE: NEW DEADLINE - Time Sensitive Request

Heather- names given me as possible custodians of records

Jeff Wellman  
Jeff Brownlee  
Sharon Maynard  
Heather Calahan  
Rebecca Cook  
Genevieve Hayes  
Jennifer Riehle  
Tom Falik  
Bill Pemble  
Melissa Sambiagio  
Sue Cieciwa  
Lymon Hunter  
Yvon Dufour  
Will Camp  
David Hatch  
Shelby Troub (receiving emergency purchases adbd requests)

Regards

*Mike Bliss*

State of Michigan  
DTMB Procurement  
517-284-7034



---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Friday, February 12, 2016 4:04 PM  
**To:** Bliss, Mike (DTMB) <blissm@michigan.gov>; Calahan, Heather (DTMB) <CALAHANH@michigan.gov>  
**Cc:** Wellman, Jeff (DTMB) <WellmanJ1@michigan.gov>  
**Subject:** FW: NEW DEADLINE - Time Sensitive Request

Let's meet Tues @ 8:30 to discuss. TOP PRIORITY.

---

**From:** Stibitz, Brom (DTMB)  
**Sent:** Friday, February 12, 2016 3:57 PM  
**To:** Allen, Charlotte (DTMB) ; Behen, David (DTMB) ; Best, Marcy (DTMB) ; Brownlee, Jeff (DTMB) ; Buhs, Caleb (DTMB) ; Davenport, Rodney (DTMB) ; Donnan, Chanda (DTMB) ; Fortino, Diane (DTMB) ; Gelisse, Ashley (DTMB) ; Gilliland, Michael (DTMB) ; Gonzalez, Tonyia (DTMB) ; Griswold, Kim (DTMB) ; Ingersoll, Jean (DHHS) ; Jeffery, Phillip (DTMB) ; King, Susan (MCSC) ; Kopacsi, Christian (DTMB) ; Lowe, Richard (DTMB) ; Manning, Kelly (DTMB) ; Mathews, Jamie (DTMB) ; McFarlane, James (DTMB) ; Nixon, Ruth (DTMB) ; Palmer, Jason (DTMB) ; Rabidoux, Jill (DTMB) ; Ragsdale,



Aimee (DTMB) ; Schafer, Dana (DTMB) ; Swanson, Eric (DTMB) ; Sweeney, Matthew (DTMB) ; Taylor, Beverly (DTMB) ; Trakul, Pamela (DTMB) ; Turnquist, Michael (DTMB) ; VanCoevering, Joyce (DTMB) ; Vanden Bosch, Kerrie (DTMB) ; Wellman, Jeff (DTMB)

**Cc:** Baker, Natasha (SRO) ; Hawks, Orlene (DTMB)

**Subject:** NEW DEADLINE - Time Sensitive Request

Senior Management Team,

We just received the search terms for the document production. (See below.) Given the lateness of this email, we are asking you send your list of custodians to Jean Ingersoll **no later than noon on Tuesday, February 16.**

We are not asking you to conduct any searches right now. Further directions will come from Jean.

Search terms:

Legionnaire

Legionella

“boil water order” & “Flint” (anywhere in document)

“coli” & Flint (anywhere in document)

“bacteria” & “Flint” (anywhere in document)

“microb” & “Flint” (anywhere in document)

“TTHM” & “Flint” (anywhere in document)

“Lead” & “Flint” (anywhere in document)

“emergency” & “Flint” (anywhere in document)

Karegnondi

“Genesee County Health Department”

“Flint” (within sentence) “utilities”

“Lead and Copper Rule”

“Detroit Water and Sewerage Department” & “Flint” (anywhere in document)

“DWSD” & “Flint” (anywhere in document)

“Flint River”

“Pb” & “water” (anywhere in document)

“KWA”

Please call me or Jean if you have any questions.

Brom

---

**From:** Stibitz, Brom (DTMB)

**Sent:** Thursday, February 11, 2016 4:40 PM

**To:** Allen, Charlotte (DTMB) <AllenCI@michigan.gov>; Behen, David (DTMB) <Behend@michigan.gov>; Best, Marcy (DTMB) <BestM@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Buhs, Caleb (DTMB) <BuhsC@michigan.gov>; Davenport, Rodney (DTMB) <DavenportR1@michigan.gov>; Donnan, Chanda (DTMB) <DonnanC@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Gelisse, Ashley (DTMB) <GelisseA@michigan.gov>; Gilliland, Michael (DTMB) <gillilandm@michigan.gov>; Gonzalez, Tonyia (DTMB) <GonzalezT1@michigan.gov>; Griswold, Kim (DTMB) <GRISWOLDK@michigan.gov>; Ingersoll, Jean (DHHS) <IngersollJ@michigan.gov>; Jeffery, Phillip (DTMB) <JefferyP@michigan.gov>; King, Susan (MCSC) <KingS5@michigan.gov>; Kopacsi, Christian (DTMB) <KopacsiC@michigan.gov>; Lowe, Richard (DTMB) <lower@michigan.gov>; Manning, Kelly (DTMB) <ManningK4@michigan.gov>; Mathews, Jamie (DTMB) <MathewsJ@michigan.gov>; McFarlane, James (DTMB) <mcfarlanej@michigan.gov>; Nixon, Ruth (DTMB) <NixonR@michigan.gov>; Palmer, Jason (DTMB) <PalmerJ2@michigan.gov>; Rabidoux, Jill (DTMB) <RabidouxJ@michigan.gov>; Ragsdale, Aimee (DTMB) <RagsdaleA@michigan.gov>; Schafer, Dana (DTMB) <schaferd1@michigan.gov>; Stibitz, Brom (DTMB) <StibitzB@michigan.gov>; Swanson, Eric (DTMB)

<[swansone@michigan.gov](mailto:swansone@michigan.gov)>; Sweeney, Matthew (DTMB) <[SweeneyM1@michigan.gov](mailto:SweeneyM1@michigan.gov)>; Taylor, Beverly (DTMB) <[TaylorB8@michigan.gov](mailto:TaylorB8@michigan.gov)>; Trakul, Pamela (DTMB) <[TrakulP@michigan.gov](mailto:TrakulP@michigan.gov)>; Turnquist, Michael (DTMB) <[TurnquistM@michigan.gov](mailto:TurnquistM@michigan.gov)>; VanCoevering, Joyce (DTMB) <[Vancoevering1@michigan.gov](mailto:Vancoevering1@michigan.gov)>; Vanden Bosch, Kerrie (DTMB) <[vandenboschk@michigan.gov](mailto:vandenboschk@michigan.gov)>; Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>

**Subject:** Time Sensitive Request

SMT,

Jean Ingersoll is leading DTMB's effort to comply with document production requests related to freedom of information requests and certain lawsuits against the state.

At some point during the day tomorrow, Jean will share with you a list of standard "search terms" which we will use to compile documents related to this lawsuit.

**Within 2 hours of receiving this email from Jean, you need to respond with a list of likely custodians from your work area.** Jean may have more information on this tomorrow, but generally speaking a custodian will be a staff member who might reasonably be expected to have documents (electronic or otherwise) that correspond to the issues identified in the search terms.

If you have any questions, please call me or Jean. This is an important issue and I thank you in advance for your attention to this matter.

Brom Stibitz  
Chief Deputy Director  
Michigan Department of Technology, Management and Budget  
[stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004



HELP. CONNECT. SOLVE.

---

**From:** Baird, Richard (GOV)  
**Sent:** Tuesday, February 16, 2016 11:03 AM  
**To:** Weise, Kevin (MSP);Brownlee, Jeff (DTMB)  
**Subject:** Fwd: FW: Flint water problems.  
**Attachments:** IMG\_0001.JPG; IMG\_0009.JPG; ATT66402.eml; ReportViewer.pdf; water testing2-6.pdf

*Sent from my Verizon 4G LTE Droid*

----- Forwarded message -----

From: "Scott, Allison (GOV)" <scotta12@michigan.gov>  
Date: Feb 16, 2016 9:46 AM  
Subject: FW: Flint water problems.  
To: "Weise, Kevin (MSP)" <WeiseK@michigan.gov>  
Cc: "Baird, Richard (GOV)" <bairdr@michigan.gov>

For your review

**From:** Jackie Goforth (US - Assurance) [mailto:jacalyn.s.goforth@pwc.com]  
**Sent:** Tuesday, February 16, 2016 9:33 AM  
**To:** Snyder, Rick (GOV) <Rick.Snyder@michigan.gov>  
**Cc:** Richard L. Baird <rbaird003@hotmail.com>; Scott, Allison (GOV) <scotta12@michigan.gov>  
**Subject:** Fwd: Flint water problems.

Rick,

First, let me say that my thoughts and prayers have been with you and your team. I can't even imagine the heartache you are experiencing over this situation.

You know how friends are, we can't help but try to see what ideas we can come up with to help provide some type of solution. One my High School friends thinks she and her family have one.

It is a Michigan based company that has a water filtration solution. Below is the information he shared with Debbie Stabenow, you may have already seen this, but in case you haven't I thought I would pass it along.

I can't think of a person better suited to lead us all through this situation. Thank you for your balanced and thoughtful leadership.

Kindest Regards,

Jackie

----- Forwarded message -----

From: **Marybeth Novitsky** <[mbmills989@gmail.com](mailto:mbmills989@gmail.com)>  
Date: Mon, Feb 15, 2016 at 7:54 PM  
Subject: Fwd: Flint water problems.  
To: [jacalyn.s.goforth@us.pwc.com](mailto:jacalyn.s.goforth@us.pwc.com), [jacalyn.s.goforth@pwc.com](mailto:jacalyn.s.goforth@pwc.com)  
Cc: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)>

Jackie -

Here is the letter that Joe sent to Senator Stabenow. Since then, the Merlin was installed at St Mary's church to supply water for the homeless, in their shelter. The next Merlin will be installed at St Luke's Women's and Children's Center. Thank you for your efforts.

We appreciate it.

Marybeth

----- Forwarded message -----

From: **Joe Novitsky** <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)>  
Date: Thu, Jan 28, 2016 at 12:45 PM  
Subject: Flint water problems.  
To: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)>

Good Morning Senator.

Please take the time to read this—WE CAN HELP--

This is Joe Novitsky, Architect and inventor of a water purifier that can eliminate or minimize the bottled water eco disaster pending in Flint.

We have been studying the problem, testing the water, and watched you last night on Rachael's show.

YOU DID GREAT! You are the ONLY one that understands the problem right now—even Rachael is not as clear as you on the solution.

Yes, we need filtered water and no one is ever going to dig up the entire City—the pipes will re-coat, and the new supply from Lake Huron will be complete within 18 months and the City system will again be healthy, but what to do until then?

We have a plan.

Of the 100K residents affected we estimate 25,000 households, and 14,000 businesses, based on information taken from the internet.

Each household of 4 needs 5 gallons per day for drinking and cooking.

We can service this need with approximately 300 units, distributed across the City with the HELP OF the COMMUNITY, and that is where you come in. These Places distributing water must be relieved from paying for the water being distributed. If that can be accomplished, we can solve this 18 month problem for about \$2.5M—FAR LESS than any other proposed effort we have heard about.

We would recommend filtered shower heads, ( about \$50 each), maybe for the clothes washer as well, and one Merlin Eco Solutions unit for about 80-100 homes ( one unit / station per every three blocks), at \$2,000 each, installed by currently unemployed technicians and Vets- that will be paid to do this. We could distribute in 5 gallon camping containers, and each resident would have to lug their daily water no more than a block and a half. It's a pain – but what other REAL choice do we have? The filters they are distributing now are good for 100 gallons, untested, and again an eco-disaster in and of themselves. Our lead filters do not have to be changed for up to 10,000 each and the first primary filter is ceramic and can be cleaned re-used for as many as half a million gallons each!

This same equivalent in bottled water equals 1,250,000 bottles spent PER DAY!! The raw cost, ( \$1/bottle) and associated cost of the current campaign are certainly not sustainable nor acceptable. Have you ever tried to shower with a bottle of water?

Please see the Flint water test results attached. A photo of one that was being installed in a Flint shelter is also attached. The two samples in the other photos are from Michigan Works!, just down the street from your Office, before and after purifying.

Our website is: [www.merlinecosolutions.com](http://www.merlinecosolutions.com)

We are currently working on getting one or two installed at St. Mary's Church currently servicing the bottle distribution, homeless shelter and Michael's Soup Kitchen. This will make an immediate contribution and difference. We did this with funds from GoFundMe site and contributions! (see attached). By the time we get something going with you, you will have their support as we took their water samples yesterday and they are being tested today. Deacon Paul is our contact there. We are currently attempting to help Dr. Mona as well----

FYI—Stanford University Medical Staff, Dr. Weiss, has endorsed this unit and science and Michigan State Chemistry and Biology Labs and Students will be monitoring the units we install to safeguard the residents and process. National Testing Labs have been the Lab we are using to date., (see attached).

I can be reached and will come demonstrate and show off our unit and results whenever you have time – if you are inclined to help us.

Thanks for the time--- and your awareness--- and focus on the solution—

Sincerely,

Joseph S. Novitsky, AIA

Merlin Eco Solutions

O (248) 433-2030

M (586) 995-2170

[Joe@JSN-AIA.com](mailto:Joe@JSN-AIA.com)

Skype: JoeN-AIA



---

This email has been checked for viruses by Avast antivirus software.  
[www.avast.com](http://www.avast.com)

----- Forwarded message -----

From: Charles Chervenka <[cjchervenka@gmail.com](mailto:cjchervenka@gmail.com)>

To: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)>

Cc:

Date: Tue, 12 Jan 2016 20:36:17 -0500

Subject: Fwd: Lynn posted an update on "Water Purifier for Mission of Hope"

Here's the site for funding. Just click on it.

To get the test data google Merlin Eco Solutions and then click on "test results" at the top of the page.

CJC

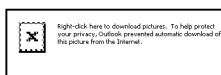
----- Forwarded message -----

From: **Lynn via GoFundMe** <[messages@gofundme.com](mailto:messages@gofundme.com)>

Date: Tue, Jan 12, 2016 at 9:56 AM

Subject: Lynn posted an update on "Water Purifier for Mission of Hope"

To: [cjchervenka@gmail.com](mailto:cjchervenka@gmail.com)



Charles, I posted an update on

### **Water Purifier for Mission of Hope**

Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't nee...

**[View Campaign](#)**









**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166

(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349706****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw, Tap Water**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	1.20*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	34.0	1	1/19/2016 10:30	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	5.000*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	9.100*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	0.850*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	10.00	1	1/19/2016 10:30	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.280*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 10:30	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.018	1	1/19/2016 10:30	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	2.6	1	1/19/2016 10:30	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016

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# National Testing Laboratories, Ltd

556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585

## ANALYTICAL REPORTS

SAMPLE CODE: 349706

1/22/2016

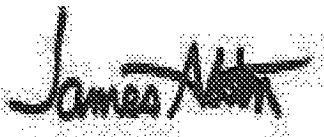
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	15	1	1/19/2016 10:30	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.520	1	1/19/2016 10:30	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**National Testing Laboratories, Ltd**

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(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349707****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw. Filtered through Purifier

**Source City:** Flint

**Source State:** MI

**Date/Time Received:** 1/19/2016 15:00

**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	ND	1	1/19/2016 10:30		1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30		1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	0.002	1	1/19/2016 10:30		1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	2.2	1	1/19/2016 10:30		1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30		1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	ND	1	1/19/2016 10:30		1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	7.10	1	1/19/2016 10:30		1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	1	1/19/2016 10:30		1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.006	1	1/19/2016 10:30		1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	ND	1	1/19/2016 10:30		1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016

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## ANALYTICAL REPORTS

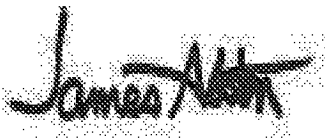
SAMPLE CODE: 349707

1/22/2016

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	32	1	1/19/2016 10:30		1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**National Testing Laboratories, Ltd**

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(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349708****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** Flint River Water (Flint River - Downtown)**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	0.12	1	1/19/2016 11:00	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	79.0	1	1/19/2016 11:00	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	0.002	1	1/19/2016 11:00	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	0.280	1	1/19/2016 11:00	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	28.00	1	1/19/2016 11:00	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.032	1	1/19/2016 11:00	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 11:00	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	3.3	1	1/19/2016 11:00	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016

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## ANALYTICAL REPORTS

SAMPLE CODE: 349708

1/22/2016

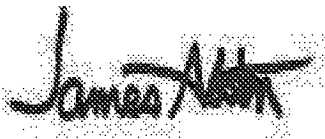
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	34	1	1/19/2016 11:00	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.007	1	1/19/2016 11:00	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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ANALYTICAL REPORTS

SAMPLE CODE: 350014

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #1  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	520*	A6 1	1/27/2016 13:53		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	66*	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350015  
2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #2 Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	2	A6	1	1/27/2016 13:53	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350016

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: Flint River (Raw) #3  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26

Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

"ND" This contaminant was not detected at or above our lower reporting limit (LRL)

"NA" Not Analyzed

"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	390	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.  
Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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# National Testing Laboratories, Ltd

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## ANALYTICAL REPORTS

SAMPLE CODE: 350017

2/4/2016

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** Flint River (Purified) #4  
**Source City:** Flint  
**Source State:** MI

**Date/Time Received:** 1/28/2016 08:26

**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

### Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

### Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Microbiologicals</b>										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350018

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #5  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1200*	A6 1	1/27/2016 15:08		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350019

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #6 - Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	<1	1	1/27/2016 15:10		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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---

**From:** Pemble, William (DTMB)  
**Sent:** Tuesday, February 16, 2016 12:01 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: NEW DEADLINE - Time Sensitive Request

Based on their definition, "A custodian will be a staff member who might reasonably be expected to have documents (electronic or otherwise) that correspond to the issues identified in the search terms." David's brief review of the procurement spend process for the \$28M emergency funding doesn't seem to meet this definition. If we want to be certain, we can always include him.

Should I send his name to Heather to be added on to the list?

**Bill Pemble**  
Procurement  
Department of Technology, Management & Budget  
[pemblew@michigan.gov](mailto:pemblew@michigan.gov)  
517-284-6993



**HELP. CONNECT. SOLVE.**

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 16, 2016 10:54 AM  
**To:** Pemble, William (DTMB) <[PembleW@michigan.gov](mailto:PembleW@michigan.gov)>  
**Cc:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Falik, Tom A. (DTMB) <[FalikT@michigan.gov](mailto:FalikT@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Hayes, Genevieve (DTMB) <[HayesG2@michigan.gov](mailto:HayesG2@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>  
**Subject:** RE: NEW DEADLINE - Time Sensitive Request

This is a request regarding historic documents.

---

**From:** Pemble, William (DTMB)  
**Sent:** Tuesday, February 16, 2016 10:54 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Cc:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Falik, Tom A. (DTMB) <[FalikT@michigan.gov](mailto:FalikT@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Hayes, Genevieve (DTMB) <[HayesG2@michigan.gov](mailto:HayesG2@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>  
**Subject:** Re: NEW DEADLINE - Time Sensitive Request

Dave was only involved in the Procurement side for one week when you asked him to be. He told me that he is no longer in that role.

Sent from my iPad

On Feb 16, 2016, at 10:06 AM, Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)> wrote:

Heather is the lead on the response. What about Hatch?

Sent from my iPhone

On Feb 16, 2016, at 10:00 AM, Pemble, William (DTMB) <[PembleW@michigan.gov](mailto:PembleW@michigan.gov)> wrote:

Jeff,

Did you want to send a coordinated response on behalf of the office so that the coordinator receives one message with all of the information for our office?

From IT, we don't have any custodians of this information.

Thanks,  
Bill

Sent from my iPad

On Feb 16, 2016, at 9:48 AM, Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)> wrote:

---

**From:** Stibitz, Brom (DTMB)  
**Sent:** Friday, February 12, 2016 3:57 PM  
**To:** Allen, Charlotte (DTMB) <[AllenC1@michigan.gov](mailto:AllenC1@michigan.gov)>; Behen, David (DTMB) <[Behend@michigan.gov](mailto:Behend@michigan.gov)>; Best, Marcy (DTMB) <[BestM@michigan.gov](mailto:BestM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Buhs, Caleb (DTMB) <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>; Davenport, Rodney (DTMB) <[DavenportR1@michigan.gov](mailto:DavenportR1@michigan.gov)>; Donnan, Chanda (DTMB) <[DonnanC@michigan.gov](mailto:DonnanC@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Gelisse, Ashley (DTMB) <[GelisseA@michigan.gov](mailto:GelisseA@michigan.gov)>; Gilliland, Michael (DTMB) <[gillilandm@michigan.gov](mailto:gillilandm@michigan.gov)>; Gonzalez, Tonyia (DTMB) <[GonzalezT1@michigan.gov](mailto:GonzalezT1@michigan.gov)>; Griswold, Kim (DTMB) <[GRISWOLDK@michigan.gov](mailto:GRISWOLDK@michigan.gov)>; Ingersoll, Jean (DHHS) <[IngersollJ@michigan.gov](mailto:IngersollJ@michigan.gov)>; Jeffery, Phillip (DTMB) <[JefferyP@michigan.gov](mailto:JefferyP@michigan.gov)>; King, Susan (MCSC) <[KingSS@michigan.gov](mailto:KingSS@michigan.gov)>; Kopacsi, Christian (DTMB) <[KopacsiC@michigan.gov](mailto:KopacsiC@michigan.gov)>; Lowe, Richard (DTMB) <[lower@michigan.gov](mailto:lower@michigan.gov)>; Manning, Kelly (DTMB) <[ManningK4@michigan.gov](mailto:ManningK4@michigan.gov)>; Mathews, Jamie (DTMB) <[MathewsJ@michigan.gov](mailto:MathewsJ@michigan.gov)>; McFarlane, James (DTMB) <[mcfarlanej@michigan.gov](mailto:mcfarlanej@michigan.gov)>; Nixon, Ruth (DTMB) <[NixonR@michigan.gov](mailto:NixonR@michigan.gov)>; Palmer, Jason (DTMB) <[PalmerJ2@michigan.gov](mailto:PalmerJ2@michigan.gov)>; Rabidoux, Jill (DTMB) <[RabidouxJ@michigan.gov](mailto:RabidouxJ@michigan.gov)>; Ragsdale, Aimee (DTMB) <[RagsdaleA@michigan.gov](mailto:RagsdaleA@michigan.gov)>; Schafer, Dana (DTMB) <[schaferd1@michigan.gov](mailto:schaferd1@michigan.gov)>; Swanson, Eric (DTMB) <[swansone@michigan.gov](mailto:swansone@michigan.gov)>; Sweeney, Matthew (DTMB) <[SweeneyM1@michigan.gov](mailto:SweeneyM1@michigan.gov)>; Taylor, Beverly (DTMB)



<TaylorBS@michigan.gov>; Trakul, Pamela (DTMB)  
<TrakulP@michigan.gov>; Turnquist, Michael (DTMB)  
<TurnquistM@michigan.gov>; VanCoevering, Joyce (DTMB)  
<Vancoeveringj1@michigan.gov>; Vanden Bosch, Kerrie (DTMB)  
<vandenboschk@michigan.gov>; Wellman, Jeff (DTMB)  
<WellmanJ1@michigan.gov>  
**Cc:** Baker, Natasha (SRO) <BakerN5@michigan.gov>; Hawks, Orlene (DTMB) <HawksO@michigan.gov>  
**Subject:** NEW DEADLINE - Time Sensitive Request

Senior Management Team,

We just received the search terms for the document production. (See below.) Given the lateness of this email, we are asking you send your list of custodians to Jean Ingersoll **no later than noon on Tuesday, February 16.**

We are not asking you to conduct any searches right now. Further directions will come from Jean.

Search terms:

Legionnaire  
Legionella  
“boil water order” & “Flint” (anywhere in document)  
“coli” & Flint (anywhere in document)  
“bacteria” & “Flint” (anywhere in document)  
“microb” & “Flint” (anywhere in document)  
“TTHM” & “Flint” (anywhere in document)  
“Lead” & “Flint” (anywhere in document)  
“emergency” & “Flint” (anywhere in document)  
Karegnondi  
“Genesee County Health Department”  
“Flint” (within sentence) “utilities”  
“Lead and Copper Rule”  
“Detroit Water and Sewerage Department” & “Flint” (anywhere in document)  
“DWSD” & “Flint” (anywhere in document)  
“Flint River”  
“Pb” & “water” (anywhere in document)  
“KWA”

Please call me or Jean if you have any questions.

Brom

---

**From:** Stibitz, Brom (DTMB)  
**Sent:** Thursday, February 11, 2016 4:40 PM  
**To:** Allen, Charlotte (DTMB) <AllenC1@michigan.gov>; Behen, David (DTMB) <Behend@michigan.gov>; Best, Marcy (DTMB) <BestM@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Buhs, Caleb (DTMB) <BuhsC@michigan.gov>; Davenport, Rodney (DTMB)

<DavenportR1@michigan.gov>; Donnan, Chanda (DTMB)  
<DonnanC@michigan.gov>; Fortino, Diane (DTMB)  
<FortinoD@michigan.gov>; Gelisse, Ashley (DTMB)  
<GelisseA@michigan.gov>; Gilliland, Michael (DTMB)  
<gillilandm@michigan.gov>; Gonzalez, Tonyia (DTMB)  
<GonzalezT1@michigan.gov>; Griswold, Kim (DTMB)  
<GRISWOLDK@michigan.gov>; Ingersoll, Jean (DHHS)  
<IngersollJ@michigan.gov>; Jeffery, Phillip (DTMB)  
<Jefferyp@michigan.gov>; King, Susan (MCSC) <KingS5@michigan.gov>;  
Kopacsi, Christian (DTMB) <KopacsiC@michigan.gov>; Lowe, Richard  
(DTMB) <lower@michigan.gov>; Manning, Kelly (DTMB)  
<ManningK4@michigan.gov>; Mathews, Jamie (DTMB)  
<MathewsJ@michigan.gov>; McFarlane, James (DTMB)  
<mcfarlanej@michigan.gov>; Nixon, Ruth (DTMB)  
<NixonR@michigan.gov>; Palmer, Jason (DTMB)  
<PalmerJ2@michigan.gov>; Rabidoux, Jill (DTMB)  
<RabidouxJ@michigan.gov>; Ragsdale, Aimee (DTMB)  
<RagsdaleA@michigan.gov>; Schafer, Dana (DTMB)  
<schaferd1@michigan.gov>; Stibitz, Brom (DTMB)  
<StibitzB@michigan.gov>; Swanson, Eric (DTMB)  
<swansone@michigan.gov>; Sweeney, Matthew (DTMB)  
<SweeneyM1@michigan.gov>; Taylor, Beverly (DTMB)  
<TaylorB8@michigan.gov>; Trakul, Pamela (DTMB)  
<TrakulP@michigan.gov>; Turnquist, Michael (DTMB)  
<TurnquistM@michigan.gov>; VanCoeverying, Joyce (DTMB)  
<Vancoeveringj1@michigan.gov>; Vanden Bosch, Kerrie (DTMB)  
<vandenboschk@michigan.gov>; Wellman, Jeff (DTMB)  
<WellmanJ1@michigan.gov>

**Subject:** Time Sensitive Request

SMT,

Jean Ingersoll is leading DTMB's effort to comply with document production requests related to freedom of information requests and certain lawsuits against the state.

At some point during the day tomorrow, Jean will share with you a list of standard "search terms" which we will use to compile documents related to this lawsuit.

**Within 2 hours of receiving this email from Jean, you need to respond with a list of likely custodians from your work area.**

Jean may have more information on this tomorrow, but generally speaking a custodian will be a staff member who might reasonably be expected to have documents (electronic or otherwise) that correspond to the issues identified in the search terms.

If you have any questions, please call me or Jean. This is an important issue and I thank you in advance for your attention to this matter.

Brom Stibitz

Chief Deputy Director  
Michigan Department of Technology, Management and Budget  
[stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004  
<image001.gif>



**Procurement Leadership Team  
Agenda  
February 3, 2016  
1:00 – 2:30  
Katherine Cushman Conference Room**

1. **SIGMA Update (Shelley)** 1:00 – 1:15  
Project Plan was approved.
  - Limited Procurement and Vendor Self Service go live summer 2017
  - Financial Systems go live October 2017Preparing for System Test – June 2016
  - Conversion
  - Reference Tables
    - Category A. Due 2/16 Tables that don't generally change. Includes Country, State, Unit of Measure, etc.
    - Category B. Due 3/18 These tables are flexible and include items such as Protest Type, Warranty Type, etc.
    - Category C. Due 5/18. These tables are included in the AIP (Agency Implementation Plan). They include Buyer, Buyer Manager, Ship to/Bill to addresses, etc.SIGMA Quarterly User Group Meeting is being planned. Expect an invite in the next few weeks.
  
2. **Protest** 1:15 – 1:20  
Mike Bliss discussed changes in protest policy and advised that new policy would be published soon. Additional changes will be made to the bidder instruction document and recommendation of award document reflecting protest information at time of solicitation and not at time of award. Additional information on second and third round protests – they are allowed, but not required.
  
3. **Procurement – Flint (Jeff)** 1:20 – 1:25  
Distributed hard copy of Emergency Purchasing Procedure. Electronic copy sent 2/3/2016  
This document was sent to all State department directors on 2/2/2016  
If you are spending \$ in connect with Flint the SOC must receive information related to the spend – this is also important due to the federal match/reimbursements  
Each agency has an SEOC – this list was distributed on 2/8/2016  
OFM sent communication in last 48 hours to CFOs of the departments that describes the coding procedure. This and the Procedure letter should be merged together  
Departments should communicate a name and number of a purchasing professional that can be contacted 24x7  
There will be a new link on the DTMB Procurement website where you can send vendors who want to do business with the State of Michigan
  
4. **iTRAC Comments (Jeff)** 1:25 – 1:30

| 5.4. Phase II Kickoff (Jeff)

1:30 – 1:35

Bill Pemble team lead

iTRAC process related to IT purchases

Working on group composition from agencies – non-IT – contact Bill Pemble if you would like to or have the name of a volunteer.

1<sup>st</sup> Kick off meeting 2/8/2016

| 6.5. Policy (Heather)

1:35 – 2:05

a. Chapter 12 – Feedback was due 1/19 – Policy Review Team 1/22

- Any input at this time?

- Reviewed almost entire Chapter with the team based on PLT subteam work in previous weeks. Any additional comments or feedback to be provided by 2/5/2016

b. Chapter 5

- User Guide

| 7.6. Operational Updates (Sharon)

2:05 – 2:15

Question - under what parameters purchase order releases in MAIN routed to DTMB for approval (for furniture). Response - Any purchase order over \$1,000 routes to DTMB Real Estate for approval for furniture, seating and carpet.

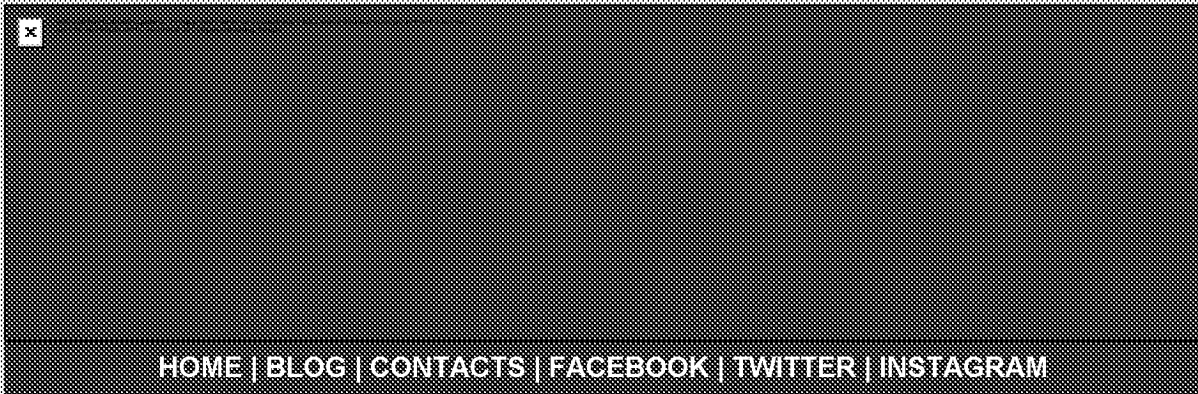
Request for a complete list of situations where routing goes to DTMB and the parameters.

Central to provide when list is completed.

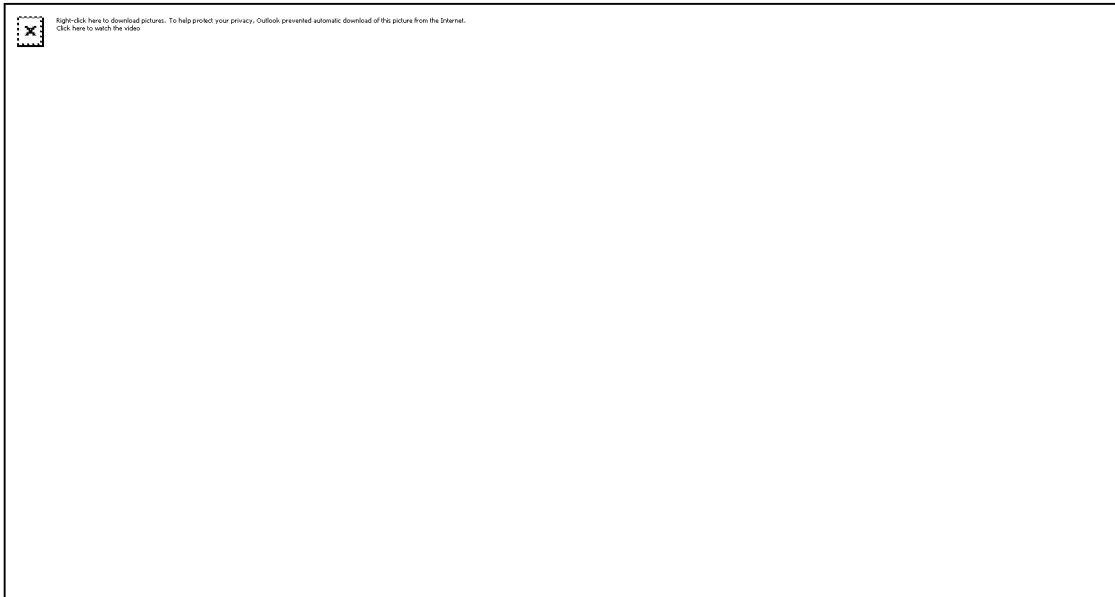
| 8.7. Walk Ins

2:15 – 2:30

**From:** Governor's Office <governoroffice@govsubscriptions.michigan.gov>  
**Sent:** Tuesday, February 16, 2016 5:32 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** VIDEO: Volunteering in Flint



## VIDEO: How volunteers are helping Flint



Volunteers at the Food Bank of Eastern Michigan are working hard to collect donations in order to help the families of Flint. Last Thursday, Governor Snyder visited with the many dedicated volunteers and helped sort cans of food.

Good nutrition is critically important for Flint's children. Foods that are high in calcium, vitamin C, and iron can help limit the effects of lead exposure. To donate or volunteer at the Food Bank of Eastern Michigan, visit [www.fbem.org](http://www.fbem.org).

**Click here to watch the video and learn more about how the Food Bank of Eastern Michigan is helping Flint's families.**



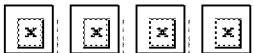
Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.  
Click here to watch the video.

## LISTEN IN: Governor Snyder's tele-town hall with Flint residents



Governor Snyder hosted his third town hall with Flint residents on Thursday, Feb. 11, answering their questions directly. [Click here to listen to the call.](#)

### STAY CONNECTED:



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This email was sent to brownleej@michigan.gov on behalf of: The Executive Office of the Governor · 111 South Capitol Avenue · Lansing, MI 48909 · 517-335-7858

---

**From:** DTMB Director and CIO David Behen <dtmb@govsubscriptions.michigan.gov>  
**Sent:** Wednesday, February 17, 2016 10:10 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** The Gov. Snyder's Budget Proposal



Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.  
DTMB Header 022216

Good morning everyone. I hope everyone had a great holiday weekend.

I had the good fortune to travel to Marquette on Monday with Chad Laidlaw, DTMB's policy and planning analyst, to meet with city, business and university leaders and to address the Economic Club of Marquette. I told them about the many things DTMB does, placing special emphasis on our work in mobility and cybersecurity. Marquette is really developing and making its mark as an innovative and entrepreneurial community.

Now work.

The executive budget Gov. Snyder presented last week outlined his investment plan for Michigan. Yes, the proposal for fiscal year 2017-18 outlined a strategy to address the critical challenges of addressing the Flint water crisis and turning around Detroit's Public Schools, but the \$54.9 billion plan also includes investment in four key areas:

- **Education.** The budget increases investment to K-12 schools, community colleges and the state's public universities. Additional funds are proposed to expand career, technical, science, technology, engineering and math programs.
- **Protecting the Public.** The governor's plan expands the Secure Cities program, which has reduced violent crime in four major Michigan cities. Funds also would support an additional trooper recruit school and an academy to train corrections officers, among other initiatives.
- **Putting People First.** The governor recommends continued expansion of the Healthy Kids Dental Program and funding efforts to ensure residents have access to affordable health care. His proposal boosts funds to help cover new higher cost specialty medications to treat conditions such as hepatitis C and cystic fibrosis, among others.
- **Investing in Infrastructure.** The proposal allocates \$1.2 billion to maintain and repair Michigan roads, bridges and other critical infrastructure.

The budget proposal also includes FY 2017-18 funding recommendations for DTMB. Gov. Snyder recommends ongoing funding of \$1.3 billion for department operations and a one-time allocation of \$32.4 million.

A few highlights include:

- \$502 million for information technology support for all state agencies and \$132.8 million for



14 high-priority IT projects in seven agencies. He recommends increasing the Information Technology Investment Fund by \$7 million, from \$65 million to \$72 million. This fund supports several major multiyear IT projects and upgrades, including the replacement of outdated legacy systems.

- An additional \$5 million to support cybersecurity improvements to safeguard citizens' personal information and protect critical infrastructure and government services.
- IT support of \$6.5 million to modernize the Office of Retirement Services' systems and enhance customer service for more than 530,000 current and future retirees.

You can see the full executive budget recommendations, which are posted on the Budget Office website. Details of DTMB's proposed budget begin on page B-75.

We can expect to see many changes before the budgets are signed and become effective Oct. 1. The executive budget will be used by the House and Senate Appropriations Committees as they work on their own budgets and hold committee hearings on the proposals. I'll keep you posted as the process moves ahead.

As always, I welcome your notes, whether about the budget process or any other topic. Please send them to me at behend@michigan.gov.

Thank you again for all the good work you do. I hope you have a great week ahead.

David

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The Department of Technology, Management and Budget

You are receiving this email because you are an employee of the Department of Technology, Management and Budget. If you have questions about your subscription, please contact DTMB-Communications@michigan.gov.

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This email was sent to brownleej@michigan.gov using GovDelivery, on behalf of DTMB · Lewis Cass Building · 320 South Walnut Street · Lansing, MI 48933 517-373-1004

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**From:** Riehle, Jenni (DTMB)  
**Sent:** Wednesday, February 17, 2016 4:19 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Flint

Jeff,

Did you want me to respond to him (and others like these you send me) or would you like me to just log his information into the current database? He is asking for a report which we do not have. We could just tell him that any specifications for purchases will be released when they are determined.

I don't think we are going to be able to just send the standard email to the inquires that come in from outside the system. Let me know, thanks.

Jenni

-----Original Message-----

From: Brownlee, Jeff (DTMB)  
Sent: Tuesday, February 16, 2016 1:56 PM  
To: Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
Subject: FW: Flint

Here's one.

-----Original Message-----

From: Richard Brown [<mailto:rbrown@vogelandbrown.com>]  
Sent: Tuesday, February 16, 2016 12:30 PM  
To: Weise, Kevin (MSP) <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
Cc: [DCawthorne@kelley-cawthorne.com](mailto:DCawthorne@kelley-cawthorne.com); Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Subject: Re: Flint

Kevin,

Thank you for your response. I apologize for this rather informal iPhone response; however, I am off-site until Friday and wanted to respond quickly as this problem dictates.

Our team is working up a proposal to conduct an on-site Demo to process your source water directly into a drinking glass.

However, as requested earlier, and I know you're in the process of building your team and dealing with 1000's of requests such as this, my engineers need a copy of your latest Water Test Lab Report which will identify all inclusive metals, minerals, microbial's, etc. in ppm's (Parts per Million), so we can set our patented equipment to remove all the undesirable elements from your water.

I am currently available by email and cell - 703-915-4318

Best regards,

Richard Brown  
President  
office 703-444-7978

aka Hot Dog  
Sent from my iPhone

> On Feb 16, 2016, at 10:03, Weise, Kevin (MSP) <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)> wrote:

>

> Hello Mr. Cawthorne and Mr. Brown: I'm Rich Baird's chief of staff for the Mission Flint Team. He asked me to respond to your inquiry. Since you last spoke, we have set up a team at DTMB to help coordinate all the offers of assistance that we have received. There have been well over a thousand so far and they keep coming in every day.

>

> Mr. Jeff Brownlee is heading up the effort at DTMB and I have cc'd him here. I recommend that you send him the details on what your organization is looking to provide, along with any relevant informational items. We haven't done any procurement yet as the relief effort is still in the evaluation stage as to who needs what in the neighborhoods and what solutions are best implemented.

>

> Thanks again for you interest.

>

> Kevin Weise

> Chief of Staff

> Mission Flint

> 517-420-2652 (m)



**Staff Meeting  
Agenda  
February 23, 2016  
9:00 – 10:00  
Katherine Cushman Conference Room**

- |                                                              |             |
|--------------------------------------------------------------|-------------|
| 1. Technology Roadmap Update (Mohamed)                       | 9:00 – 9:05 |
| 2. Update from David's Staff Meeting (Jeff W.)               | 9:05 – 9:10 |
| 3. Employee Engagement/Customer Satisfaction (Jeff W. - All) | 9:10 – 9:20 |
| 4.                                                           |             |

Previous Weeks 9:25 –

1. Office Communications
  - City of Flint – increase in spending will be coordinated with a cross agency team to support efforts. Immediate impact on this office. Jenni will be lead on emails from vendors offering services.
2. Comments in iTRAC (Sharon)
  - 2/16 Communicate to staff this week and next week that this must be completed consistently by end of Feb. Jeff B. has to report out to Brom
3. Wall of Thanks (Rebecca)
  - 2/16 Steve will have Kelly coordinate
4. FOIA – working document versions (next steps Sharon to assign to Tom to lead a team to address)
  - 1/26/16 – report out - this was assigned to Tom and will follow up with him to determine status
  - 2/16 – Tom reported that a meeting scheduled for 2/16 with Mike and Tammy, and next step to Gary Buckberry. Ensure that Heather is included.
5. Chapter 5 – Process Training for Central and agency staff (Bill)
  - Planning session for June 2016
  - Sharon as lead on establishing Central Procurement processing for documenting Chapter 5 requests – February 12, 2016
  - 2/16 Sharon reported that she is working with Wendy and will report out next week



**STATE OF MICHIGAN**  
**Department of Environmental Quality**  
**Procurement**

Flint Water System - Reliability Study, Planning, and Support

# STATE OF MICHIGAN

## Flint Water System - Project Plan and Reliability Study, Planning, and Support **STATEMENT OF WORK CONTRACT ACTIVITIES**

### **BACKGROUND**

Based on the study of the City of Flint drinking water system completed in 2013 by Rowe Professional Services Company, the State of Michigan is requesting an update, supplementation, and review based on the criteria below.

### **SCOPE**

Recommendations on steps needed to mitigate the endangerment of human health and minimize risks associated with the general operations of the drinking water system in Flint to ensure compliance with the Safe Drinking Water Act and National Primary Drinking Water Regulations.

### **REQUIREMENTS**

#### **1. General Requirements**

##### **1.1. Requirements**

The contractor will provide recommendations on steps needed to mitigate the endangerment of human health and minimize risks associated with the general operations of the drinking water system in Flint to ensure compliance with the Safe Drinking Water Act and National Primary Drinking Water Regulations.

Deliverables include an updated reliability study assessing the overall status and prioritizing the needs of the drinking water infrastructure, including infrastructure from the water source to the water treatment plant and from the water treatment plant to the service connections in the homes in Flint. A complete inventory of the water service lines will be identified, including the type of material used within the service lines and age of the service lines if known. The replacement of approximately 30 geographically disbursed service lines will also be required to assist with the verification of the inventory and proof of concept. In addition, a comprehensive asset management plan will be provided. The asset management plan shall provide an inventory of drinking water infrastructure, road projects, and other utility upgrades. The asset management plan will also include estimated timeframes for upcoming infrastructure projects and recommendations for when to address various infrastructure projects in coordination with other upgrades.

Details for specific tasks, together with the schedule, budget, and deliverables for each task will be authorized by work orders. Work orders will be developed and authorized as the State determines the need for specific tasks and approved the budget per task.

##### **1.2 Deliverables**

<b>Deliverable(s)</b>	<b>Estimated Phase Completion</b>
Replacement of Approximately 30 Service Lines	3/15/2016
Inventory of Water Service Lines	3/15/2016
Water Infrastructure Reliability Study	3/15/2016
Comprehensive Asset Management Plan	5/16/2016

#### **2. Acceptance**

##### **2.1. Acceptance**

The State will use the following criteria to determine acceptance of the Contract Activities: The Contractor will be responsible for providing status updates and a formal report for each phase of the project. Payment to the vendor will be upon signoff of each phase's final report.

### 3. Staffing

#### 3.1. Contractor Representative

The Contractor appoints, James E. Redding, P.E., specifically assigned to State of Michigan accounts, that will respond to State inquiries regarding the Contract Activities, answering questions related to ordering and delivery, etc. (the "Contractor Representative").

The Contractor must notify the Contract Administrator at least 30 calendar days before removing or assigning a new Contractor Representative.

#### 3.2. Disclosure of Subcontractors

If the Contractor intends to utilize subcontractors, the Contractor must disclose the following:

The legal business name; address; telephone number; a description of subcontractor's organization and the services it will provide; and information concerning subcontractor's ability to provide the Contract Activities.

The relationship of the subcontractor to the Contractor.

Whether the Contractor has a previous working experience with the subcontractor. If yes, provide the details of that previous relationship.

A complete description of the Contract Activities that will be performed or provided by the subcontractor.  
Of the total bid, the price of the subcontractor's work.

### 4. Project Management

The project is expected to last up to eleven (11) months in duration. Verbal and/or written communication is expected at least on a biweekly basis with formal reports required within 14 days of the end of each phase.

#### 4.1. Project Plan

The Contractor will be responsible for providing a comprehensive project plan, including contact personnel; the date the project plan will be submitted to the State; project management process; project breakdown identifying sub-projects, tasks, and resources required; expected frequency and mechanisms for updates/progress reviews; process for addressing issues/changes; and individuals responsible for receiving/reacting to the requested information.

Within 14 calendar days of the Effective Date, the Contractor must submit a project plan to the Program Manager for final approval.

#### 4.2 Transition

The Contractor will be responsible for providing all reports, including research and strategies to the Michigan Department of Environmental Quality.

#### 4.3. Meetings

The Contractor must attend a project kick-off meeting within 30 calendar days of the effective date of the contract. The State may request other meetings, as it deems appropriate.

#### 4.4. Reporting

The Contractor must submit written reports to the Project Manager for all phases of the project with a comprehensive report and recommendation at the completion of the project. The Contractor must explain its reporting capabilities and any reporting that is included in its proposal. Reporting requirements and timeline are as follows:

Tasks	Deliverable(s)	Estimated Phase Completion
Replacement of Approximately 30 Service Lines	Bi-weekly progress updates throughout the phase Final report due 30 days after phase completion	3/15/2016
Inventory of Water Service Lines	Bi-weekly progress updates throughout the phase Final report due 30 days after phase completion	3/15/2016
Water Infrastructure Reliability Study	Bi-weekly progress updates throughout the phase Final report due 30 days after phase completion	3/15/2016

Comprehensive Asset Management Plan	Bi-weekly progress updates throughout the phase Final report due 30 days after phase completion	5/16/2016
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## **5. Ordering**

### **5.1. Authorizing Document**

The appropriate authorizing document for the Contract will be purchase order.

## **6. Invoice and Payment**

### **6.1. Invoice Requirements**

All invoices submitted to the State must include: (a) date; (b) purchase order; (c) quantity; (d) description of the Contract Activities; (e) unit price; (f) shipping cost (if any); and (g) total price. Overtime, holiday pay, and travel expenses will not be paid.

### **6.2. Payment Methods**

The State will make payment for Contract Activities by electronic funds transfer (EFT). The Contractor must be registered for EFT payments with vendor services.





# STATE OF MICHIGAN

## STANDARD CONTRACT TERMS

This STANDARD CONTRACT ("**Contract**") is agreed to between the State of Michigan (the "**State**") and Rowe Professional Services Company ("**Contractor**"), a Michigan corporation. This Contract is effective on February 11, 2016 ("**Effective Date**"), and unless terminated, expires on December 31, 2016.

This Contract may be renewed for up to one (1) year. Renewal must be by written agreement of the parties and will automatically extend the Term of this Contract.

The parties agree as follows:

- 1. Duties of Contractor.** Contractor must perform the services and provide the deliverables described in **Exhibit A – Statement of Work** (the "**Contract Activities**"). An obligation to provide delivery of any commodity is considered a service and is a Contract Activity.

Contractor must furnish all labor, equipment, materials, and supplies necessary for the performance of the Contract Activities, and meet operational standards, unless otherwise specified in Exhibit A.

Contractor must: (a) perform the Contract Activities in a timely, professional, safe, and workmanlike manner consistent with standards in the trade, profession, or industry; (b) meet or exceed the performance and operational standards, and specifications of the Contract; (c) provide all Contract Activities in good quality, with no material defects; (d) not interfere with the State's operations; (e) obtain and maintain all necessary licenses, permits or other authorizations necessary for the performance of the Contract; (f) cooperate with the State, including the State's quality assurance personnel, and any third party to achieve the objectives of the Contract; (g) return to the State any State-furnished equipment or other resources in the same condition as when provided when no longer required for the Contract; (h) not make any media releases without prior written authorization from the State; (i) assign to the State any claims resulting from state or federal antitrust violations to the extent that those violations concern materials or services supplied by third parties toward fulfillment of the Contract; (j) comply with all State physical and IT security policies and standards which will be made available upon request; and (k) provide the State priority in performance of the Contract except as mandated by federal disaster response requirements. Any breach under this paragraph is considered a material breach.

Contractor must also be clearly identifiable while on State property by wearing identification issued by the State, and clearly identify themselves whenever making contact with the State.

- 2. Notices.** All notices and other communications required or permitted under this Contract must be in writing and will be considered given and received: (a) when verified by written receipt if sent by courier; (b) when actually received if sent by mail without verification of receipt; or (c) when verified by automated receipt or electronic logs if sent by facsimile or email.

If to State:	If to Contractor:
<i>Tara Premoe, DEQ Administration/Procurement PO Box 30473 Lansing, MI 48909-7973 <a href="mailto:premoet@michigan.gov">premoet@michigan.gov</a> 517-284-5012</i>	James E. Redding Rowe Professional Services Company PO Box 3748 Flint, MI 48502 <a href="mailto:jredding@rowepsc.com">jredding@rowepsc.com</a> 810-341-7500

3. **Contract Administrator.** The Contract Administrator for each party is the only person authorized to modify any terms of this Contract, and approve and execute any change under this Contract (each a "**Contract Administrator**");

State:	Contractor:
Tara Premoe, DEQ Administration/Procurement PO Box 30473 Lansing, MI 48909-7973 <a href="mailto:premoet@michigan.gov">premoet@michigan.gov</a> 517-284-5012	James E. Redding Rowe Professional Services Company PO Box 3748 Flint, MI 48502 <a href="mailto:redding@rowensc.com">redding@rowensc.com</a> 810-341-7500

4. **Program Manager.** The Program Manager for each party will monitor and coordinate the day-to-day activities of the Contract (each a "**Program Manager**");

State:	Contractor:
Amy Epkey, DEQ Administration PO Box 30473 Lansing, MI 48909-7973 <a href="mailto:epkeya@michigan.gov">epkeya@michigan.gov</a> 517-284-5002	James E. Redding Rowe Professional Services Company PO Box 3748 Flint, MI 48502 <a href="mailto:redding@rowensc.com">redding@rowensc.com</a> 810-341-7500

5. **Performance Guarantee.** Contractor must at all times have financial resources sufficient, in the opinion of the State, to ensure performance of the Contract and must provide proof upon request. The State may require a performance bond (as specified in Exhibit A) if, in the opinion of the State, it will ensure performance of the Contract.
6. **Insurance Requirements.** Contractor must maintain the insurances identified below and is responsible for all deductibles. All required insurance must: (a) protect the State from claims that may arise out of, are alleged to arise out of, or result from Contractor's or a subcontractor's performance; (b) be primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State; and (c) be provided by a company with an A.M. Best rating of "A" or better, and a financial size of VII or better.

Required Limits	Additional Requirements
<b>Commercial General Liability Insurance</b>	
<u>Minimal Limits:</u> \$1,000,000 Each Occurrence Limit \$1,000,000 Personal & Advertising Injury Limit \$2,000,000 General Aggregate Limit \$2,000,000 Products/Completed Operations  <u>Deductible Maximum:</u> \$50,000 Each Occurrence	Contractor must have their policy endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds using endorsement CG 20 10 11 85, or both CG 2010 07 04 and CG 2037 07 0.
<b>Automobile Liability Insurance</b>	
<u>Minimal Limits:</u> \$1,000,000 Per Occurrence	Contractor must have their policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds; and (2) include Hired and Non-Owned Automobile coverage.
<b>Workers' Compensation Insurance</b>	
<u>Minimal Limits:</u> Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.
<b>Employers Liability Insurance</b>	
<u>Minimal Limits:</u>	

\$500,000 Each Accident \$500,000 Each Employee by Disease \$500,000 Aggregate Disease.	
<b>Professional Liability (Errors and Omissions) Insurance</b>	
<u>Minimal Limits:</u> \$2,000,000 Each Occurrence \$4,000,000 Annual Aggregate  <u>Deductible Maximum:</u> \$50,000 Per Loss	

If any of the required policies provide **claims-made** coverage, the Contractor must: (a) provide coverage with a retroactive date before the effective date of the contract or the beginning of Contract Activities; (b) maintain coverage and provide evidence of coverage for at least three (3) years after completion of the Contract Activities; and (c) if coverage is canceled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, Contractor must purchase extended reporting coverage for a minimum of three (3) years after completion of work.

Contractor must: (a) provide insurance certificates to the Contract Administrator, containing the agreement or purchase order number, at Contract formation and within 20 calendar days of the expiration date of the applicable policies; (b) require that subcontractors maintain the required insurances contained in this Section; (c) notify the Contract Administrator within 5 business days if any insurance is cancelled; and (d) waive all rights against the State for damages covered by insurance. Failure to maintain the required insurance does not limit this waiver.

This Section is not intended to and is not be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State).

7. **Reserved.**

8. **Reserved.**

9. **Independent Contractor.** Contractor is an independent contractor and assumes all rights, obligations and liabilities set forth in this Contract. Contractor, its employees, and agents will not be considered employees of the State. No partnership or joint venture relationship is created by virtue of this Contract. Contractor, and not the State, is responsible for the payment of wages, benefits and taxes of Contractor's employees and any subcontractors. Prior performance does not modify Contractor's status as an independent contractor. Contractor hereby acknowledges that the State is and will be the sole and exclusive owner of all right, title, and interest in the Contract Activities and all associated intellectual property rights, if any. Such Contract Activities are works made for hire as defined in Section 101 of the Copyright Act of 1976. To the extent any Contract Activities and related intellectual property do not qualify as works made for hire under the Copyright Act, Contractor will, and hereby does, immediately on its creation, assign, transfer and otherwise convey to the State, irrevocably and in perpetuity, throughout the universe, all right, title and interest in and to the Contract Activities, including all intellectual property rights therein.

10. **Subcontracting.** Contractor may not delegate any of its obligations under the Contract without the prior written approval of the State. Contractor must notify the State at least 90 calendar days before the proposed delegation, and provide the State any information it requests to determine whether the delegation is in its best interest. If approved, Contractor must: (a) be the sole point of contact regarding all contractual matters, including payment and charges for all Contract Activities; (b) make all payments to the subcontractor; and (c) incorporate the terms and conditions contained in this Contract in any subcontract with a subcontractor. Contractor remains responsible for the completion of the Contract Activities, compliance with the terms of this Contract, and the acts and omissions of the subcontractor. The State, in its sole discretion, may require the replacement of any subcontractor.

11. **Staffing.** The State's Contract Administrator may require Contractor to remove or reassign personnel by providing a notice to Contractor.

12. **Background Checks.** Upon request, Contractor must perform background checks on all employees and subcontractors and its employees prior to their assignment. The scope is at the discretion of the State and documentation must be provided as requested. Contractor is responsible for all costs associated with the requested background checks. The State, in its sole discretion, may also perform background checks.
13. **Assignment.** Contractor may not assign this Contract to any other party without the prior approval of the State. Upon notice to Contractor, the State, in its sole discretion, may assign in whole or in part, its rights or responsibilities under this Contract to any other party. If the State determines that a novation of the Contract to a third party is necessary, Contractor will agree to the novation and provide all necessary documentation and signatures.
14. **Change of Control.** Contractor will notify, at least 90 calendar days before the effective date, the State of a change in Contractor's organizational structure or ownership. For purposes of this Contract, a change in control means any of the following: (a) a sale of more than 50% of Contractor's stock; (b) a sale of substantially all of Contractor's assets; (c) a change in a majority of Contractor's board members; (d) consummation of a merger or consolidation of Contractor with any other entity; (e) a change in ownership through a transaction or series of transactions; (f) or the board (or the stockholders) approves a plan of complete liquidation. A change of control does not include any consolidation or merger effected exclusively to change the domicile of Contractor, or any transaction or series of transactions principally for bona fide equity financing purposes.

In the event of a change of control, Contractor must require the successor to assume this Contract and all of its obligations under this Contract.

15. **Ordering.** Contractor is not authorized to begin performance until receipt of authorization as identified in Exhibit A.
16. **Acceptance.** Contract Activities are subject to inspection and testing by the State within 30 calendar days of the State's receipt of them ("**State Review Period**"), unless otherwise provided in Exhibit A. If the Contract Activities are not fully accepted by the State, the State will notify Contractor by the end of the State Review Period that either: (a) the Contract Activities are accepted, but noted deficiencies must be corrected; or (b) the Contract Activities are rejected. If the State finds material deficiencies, it may: (i) reject the Contract Activities without performing any further inspections; (ii) demand performance at no additional cost; or (iii) terminate this Contract in accordance with Section 23, Termination for Cause.

Within 10 business days from the date of Contractor's receipt of notification of acceptance with deficiencies or rejection of any Contract Activities, Contractor must cure, at no additional cost, the deficiency and deliver unequivocally acceptable Contract Activities to the State. If acceptance with deficiencies or rejection of the Contract Activities impacts the content or delivery of other non-completed Contract Activities, the parties' respective Program Managers must determine an agreed to number of days for re-submission that minimizes the overall impact to the Contract. However, nothing herein affects, alters, or relieves Contractor of its obligations to correct deficiencies in accordance with the time response standards set forth in this Contract.

If Contractor is unable or refuses to correct the deficiency within the time response standards set forth in this Contract, the State may cancel the order in whole or in part. The State, or a third party identified by the State, may perform the Contract Activities and recover the difference between the cost to cure and the Contract price plus an additional 10% administrative fee.

17. **Reserved.**
18. **Reserved.**
19. **Reserved.**
20. **Terms of Payment.** Invoices must conform to the requirements communicated from time-to-time by the State. All undisputed amounts are payable within 45 days of the State's receipt. Contractor may only charge for Contract Activities performed as specified in Exhibit A. Invoices must include an itemized statement of all charges. The State is exempt from State sales tax for direct purchases and may be exempt from federal excise tax, if Services purchased under this Agreement are for the State's exclusive use. Notwithstanding the foregoing, all prices are inclusive of taxes, and Contractor is responsible for all sales, use and excise taxes, and any other similar taxes, duties and charges of any kind imposed by any federal, state, or local governmental entity on any amounts payable by the State under this Contract.

The State has the right to withhold payment of any disputed amounts until the parties agree as to the validity of

the disputed amount. The State will notify Contractor of any dispute within a reasonable time. Payment by the State will not constitute a waiver of any rights as to Contractor's continuing obligations, including claims for deficiencies or substandard Contract Activities. Contractor's acceptance of final payment by the State constitutes a waiver of all claims by Contractor against the State for payment under this Contract, other than those claims previously filed in writing on a timely basis and still disputed.

The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at <http://www.michigan.gov/cpexpress> to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment.

Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract.

21. **Liquidated Damages.** Liquidated damages, if applicable, will be assessed as described in Exhibit A.
22. **Stop Work Order.** The State may suspend any or all activities under the Contract at any time. The State will provide Contractor a written stop work order detailing the suspension. Contractor must comply with the stop work order upon receipt. Within 90 calendar days, or any longer period agreed to by Contractor, the State will either: (a) issue a notice authorizing Contractor to resume work, or (b) terminate the Contract or purchase order. The State will not pay for Contract Activities, Contractor's lost profits, or any additional compensation during a stop work period.
23. **Termination for Cause.** The State may terminate this Contract for cause, in whole or in part, if Contractor, as determined by the State: (a) endangers the value, integrity, or security of any location, data, or personnel; (b) becomes insolvent, petitions for bankruptcy court proceedings, or has an involuntary bankruptcy proceeding filed against it by any creditor; (c) engages in any conduct that may expose the State to liability; (d) breaches any of its material duties or obligations; or (e) fails to cure a breach within the time stated in a notice of breach. Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

If the State terminates this Contract under this Section, the State will issue a termination notice specifying whether Contractor must: (a) cease performance immediately, or (b) continue to perform for a specified period. If it is later determined that Contractor was not in breach of the Contract, the termination will be deemed to have been a Termination for Convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in Section 24, Termination for Convenience.

The State will only pay for amounts due to Contractor for Contract Activities accepted by the State on or before the date of termination, subject to the State's right to set off any amounts owed by the Contractor for the State's reasonable costs in terminating this Contract. The Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees, court costs, transition costs, and any costs the State incurs to procure the Contract Activities from other sources.

24. **Termination for Convenience.** The State may immediately terminate this Contract in whole or in part without penalty and for any reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must: (a) cease performance of the Contract Activities immediately, or (b) continue to perform the Contract Activities in accordance with Section 25, Transition Responsibilities. If the State terminates this Contract for convenience, the State will pay all reasonable costs, as determined by the State, for State approved Transition Responsibilities.
25. **Transition Responsibilities.** Upon termination or expiration of this Contract for any reason, Contractor must, for a period of time specified by the State (not to exceed 90 calendar days), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Contract Activities to continue without interruption or adverse effect, and to facilitate the orderly transfer of such Contract Activities to the State or its designees. Such transition assistance may include, but is not limited to: (a) continuing to perform the Contract Activities at the established Contract rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable Contract Activities, training, equipment, software, leases, reports and other documentation, to the State or the State's designee; (c) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return to the State all materials, data, property, and confidential information provided directly or indirectly to Contractor by any entity, agent, vendor, or employee of the State; (d) transferring title in and delivering to the State, at the State's discretion, all completed or partially completed deliverables prepared under this Contract as of the Contract termination date; and (e) preparing an accurate accounting from which the State and Contractor may reconcile

all outstanding accounts (collectively, "**Transition Responsibilities**"). This Contract will automatically be extended through the end of the transition period.

- 26. General Indemnification.** Contractor must defend, indemnify and hold the State, its departments, divisions, agencies, offices, commissions, officers, and employees harmless, without limitation, from and against any and all actions, claims, losses, liabilities, damages, costs, attorney fees, and expenses (including those required to establish the right to indemnification), arising out of or relating to: (a) any breach by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable) of any of the promises, agreements, representations, warranties, or insurance requirements contained in this Contract; (b) any infringement, misappropriation, or other violation of any intellectual property right or other right of any third party; (c) any bodily injury, death, or damage to real or tangible personal property occurring wholly or in part due to action or inaction by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable); and (d) any acts or omissions of Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable).

The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations.

The State is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; (iii) employ its own counsel; and to (iv) retain control of the defense if the State deems necessary. Contractor will not, without the State's written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. To the extent that any State employee, official, or law may be involved or challenged, the State may, at its own expense, control the defense of that portion of the claim.

Any litigation activity on behalf of the State, or any of its subdivisions under this Section, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

- 27. Infringement Remedies.** If, in either party's opinion, any piece of equipment, software, commodity, or service supplied by Contractor or its subcontractors, or its operation, use or reproduction, is likely to become the subject of a copyright, patent, trademark, or trade secret infringement claim, Contractor must, at its expense: (a) procure for the State the right to continue using the equipment, software, commodity, or service, or if this option is not reasonably available to Contractor, (b) replace or modify the same so that it becomes non-infringing; or (c) accept its return by the State with appropriate credits to the State against Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.
- 28. Limitation of Liability.** The State is not liable for consequential, incidental, indirect, or special damages, regardless of the nature of the action.
- 29. Disclosure of Litigation, or Other Proceeding.** Contractor must notify the State within 14 calendar days of receiving notice of any litigation, investigation, arbitration, or other proceeding (collectively, "**Proceeding**") involving Contractor, a subcontractor, or an officer or director of Contractor or subcontractor, that arises during the term of the Contract, including: (a) a criminal Proceeding; (b) a parole or probation Proceeding; (c) a Proceeding under the Sarbanes-Oxley Act; (d) a civil Proceeding involving: (1) a claim that might reasonably be expected to adversely affect Contractor's viability or financial stability; or (2) a governmental or public entity's claim or written allegation of fraud; or (e) a Proceeding involving any license that Contractor is required to possess in order to perform under this Contract.
- 30. State Data.** All data and information provided to Contractor by or on behalf of the State, and all data and information derived therefrom, is the exclusive property of the State ("**State Data**"); this definition is to be construed as broadly as possible. Upon request, Contractor must provide to the State, or a third party designated by the State, all State Data within 10 calendar days of the request and in the format requested by the State. Contractor will assume all costs incurred in compiling and supplying State Data. No State Data may be used for any marketing purposes.
- 31. Reserved.**
- 32. Non-Disclosure of Confidential Information.** The parties acknowledge that each party may be exposed to or acquire communication or data of the other party that is confidential, privileged communication not intended to be disclosed to third parties. The provisions of this Section survive the termination of this Contract.

- a. Meaning of Confidential Information. For the purposes of this Contract, the term “**Confidential Information**” means all information and documentation of a party that: (a) has been marked “confidential” or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked “confidential” or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked “confidential” or with words of similar meaning; and, (c) should reasonably be recognized as confidential information of the disclosing party. The term “Confidential Information” does not include any information or documentation that was: (a) subject to disclosure under the Michigan Freedom of Information Act (FOIA); (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party's proprietary rights; (d) obtained from a source other than the disclosing party without an obligation of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure by, through, or on behalf of, the receiving party). For purposes of this Contract, in all cases and for all matters, State Data is deemed to be Confidential Information.
- b. Obligation of Confidentiality. The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to a subcontractor is permissible where: (a) use of a subcontractor is authorized under this Contract; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the subcontractor's responsibilities; and (c) Contractor obligates the subcontractor in a written contract to maintain the State's Confidential Information in confidence. At the State's request, any employee of Contractor or any subcontractor may be required to execute a separate agreement to be bound by the provisions of this Section.
- c. Cooperation to Prevent Disclosure of Confidential Information. Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party immediately in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract and each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.
- d. Remedies for Breach of Obligation of Confidentiality. Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, in the case of the State, at the sole election of the State, the immediate termination, without liability to the State, of this Contract or any Statement of Work corresponding to the breach or threatened breach.
- e. Surrender of Confidential Information upon Termination. Upon termination of this Contract or a Statement of Work, in whole or in part, each party must, within 5 calendar days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party's possession, custody, or control; provided, however, that Contractor must return State Data to the State following the timeframe and procedure described further in this Contract. Should Contractor or the State determine that the return of any Confidential Information is not feasible, such party must destroy the Confidential Information and must certify the same in writing within 5 calendar days from the date of termination to the other party.

33. **Reserved.**

34. **Reserved.**

35. **Reserved.**

36. **Records Maintenance, Inspection, Examination, and Audit.** The State or its designee may audit Contractor to verify compliance with this Contract. Contractor must retain, and provide to the State or its designee and the

auditor general upon request, all financial and accounting records related to the Contract through the term of the Contract and for 4 years after the latter of termination, expiration, or final payment under this Contract or any extension ("**Audit Period**"). If an audit, litigation, or other action involving the records is initiated before the end of the Audit Period, Contractor must retain the records until all issues are resolved.

Within 10 calendar days of providing notice, the State and its authorized representatives or designees have the right to enter and inspect Contractor's premises or any other places where Contract Activities are being performed, and examine, copy, and audit all records related to this Contract. Contractor must cooperate and provide reasonable assistance. If any financial errors are revealed, the amount in error must be reflected as a credit or debit on subsequent invoices until the amount is paid or refunded. Any remaining balance at the end of the Contract must be paid or refunded within 45 calendar days.

This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.

- 37. Warranties and Representations.** Contractor represents and warrants: (a) Contractor is the owner or licensee of any Contract Activities that it licenses, sells, or develops and Contractor has the rights necessary to convey title, ownership rights, or licensed use; (b) all Contract Activities are delivered free from any security interest, lien, or encumbrance and will continue in that respect; (c) the Contract Activities will not infringe the patent, trademark, copyright, trade secret, or other proprietary rights of any third party; (d) Contractor must assign or otherwise transfer to the State or its designee any manufacturer's warranty for the Contract Activities; (e) the Contract Activities are merchantable and fit for the specific purposes identified in the Contract; (f) the Contract signatory has the authority to enter into this Contract; (g) all information furnished by Contractor in connection with the Contract fairly and accurately represents Contractor's business, properties, finances, and operations as of the dates covered by the information, and Contractor will inform the State of any material adverse changes; and (h) all information furnished and representations made in connection with the award of this Contract is true, accurate, and complete, and contains no false statements or omits any fact that would make the information misleading. A breach of this Section is considered a material breach of this Contract, which entitles the State to terminate this Contract under Section 23, Termination for Cause.
- 38. Conflicts and Ethics.** Contractor will uphold high ethical standards and is prohibited from: (a) holding or acquiring an interest that would conflict with this Contract; (b) doing anything that creates an appearance of impropriety with respect to the award or performance of the Contract; (c) attempting to influence or appearing to influence any State employee by the direct or indirect offer of anything of value; or (d) paying or agreeing to pay any person, other than employees and consultants working for Contractor, any consideration contingent upon the award of the Contract. Contractor must immediately notify the State of any violation or potential violation of these standards. This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.
- 39. Compliance with Laws.** Contractor must comply with all federal, state and local laws, rules and regulations.
- 40. Reserved.**
- 41. Reserved.**
- 42. Nondiscrimination.** Under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, *et seq.*, and the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, *et seq.*, Contractor and its subcontractors agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, or mental or physical disability. Breach of this covenant is a material breach of this Contract.
- 43. Unfair Labor Practice.** Under MCL 423.324, the State may void any Contract with a Contractor or subcontractor who appears on the Unfair Labor Practice register compiled under MCL 423.322.
- 44. Governing Law.** This Contract is governed, construed, and enforced in accordance with Michigan law, excluding choice-of-law principles, and all claims relating to or arising out of this Contract are governed by Michigan law, excluding choice-of-law principles. Any dispute arising from this Contract must be resolved in Michigan Court of Claims. Contractor consents to venue in Ingham County, and waives any objections, such as lack of personal jurisdiction or *forum non conveniens*. Contractor must appoint agents in Michigan to receive service of process.



45. **Non-Exclusivity.** Nothing contained in this Contract is intended nor will be construed as creating any requirements contract with Contractor. This Contract does not restrict the State or its agencies from acquiring similar, equal, or like Contract Activities from other sources.
46. **Force Majeure.** Neither party will be in breach of this Contract because of any failure arising from any disaster or acts of god that are beyond their control and without their fault or negligence. Each party will use commercially reasonable efforts to resume performance. Contractor will not be relieved of a breach or delay caused by its subcontractors. If immediate performance is necessary to ensure public health and safety, the State may immediately contract with a third party.
47. **Dispute Resolution.** The parties will endeavor to resolve any Contract dispute in accordance with this provision. The dispute will be referred to the parties' respective Contract Administrators or Program Managers. Such referral must include a description of the issues and all supporting documentation. The parties must submit the dispute to a senior executive if unable to resolve the dispute within 15 business days. The parties will continue performing while a dispute is being resolved, unless the dispute precludes performance. A dispute involving payment does not preclude performance.
- Litigation to resolve the dispute will not be instituted until after the dispute has been elevated to the parties' senior executive and either concludes that resolution is unlikely, or fails to respond within 15 business days. The parties are not prohibited from instituting formal proceedings: (a) to avoid the expiration of statute of limitations period; (b) to preserve a superior position with respect to creditors; or (c) where a party makes a determination that a temporary restraining order or other injunctive relief is the only adequate remedy. This Section does not limit the State's right to terminate the Contract.
48. **Media Releases.** News releases (including promotional literature and commercial advertisements) pertaining to the Contract or project to which it relates must not be made without prior written State approval, and then only in accordance with the explicit written instructions of the State.
49. **Website Incorporation.** The State is not bound by any content on Contractor's website unless expressly incorporated directly into this Contract.
50. **Order of Precedence.** In the event of a conflict between the terms and conditions of the Contract, the exhibits, a purchase order, or an amendment, the order of precedence is: (a) the purchase order; (b) the amendment; (c) Exhibit A; (d) any other exhibits; and (e) the Contract.
51. **Severability.** If any part of this Contract is held invalid or unenforceable, by any court of competent jurisdiction, that part will be deemed deleted from this Contract and the severed part will be replaced by agreed upon language that achieves the same or similar objectives. The remaining Contract will continue in full force and effect.
52. **Waiver.** Failure to enforce any provision of this Contract will not constitute a waiver.
53. **Survival.** The provisions of this Contract that impose continuing obligations, including warranties and representations, termination, transition, insurance coverage, indemnification, and confidentiality, will survive the expiration or termination of this Contract.
54. **Entire Contract and Modification.** This Contract is the entire agreement and replaces all previous agreements between the parties for the Contract Activities. This Contract may not be amended except by signed agreement between the parties (a "**Contract Change Notice**").


# STATE OF MICHIGAN

## Flint Water System - Project Plan and Reliability Study, Planning, and Support **PRICING**

Phase	<i>Description of Services:</i> Flint Water System - Project Plan and Reliability Study
Task 1	Replacement of Approximately 30 Service Lines
Task 2	Inventory of Water Service Lines
Task 3	Water Infrastructure Reliability Study
Task 4	Comprehensive Asset Management Plan

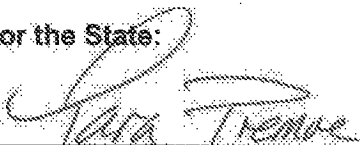
Details for specific tasks, together with the schedule, budget, and deliverables for each task will be authorized by work orders. Work orders will be developed and authorized as the State determines the need for specific tasks and approves the budget per task.

For the Contractor:

  
James E. Redding, P.E.,  
Contract Administrator  
Rowe Professional Services Company

2/16/2016  
Date

For the State:

  
Tara Premoe,  
Department of Environmental Quality  
State of Michigan


2/16/2016  
Date

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**From:** Ingersoll, Jean (DTMB)  
**Sent:** Thursday, February 18, 2016 8:36 AM  
**To:** Rigg, Steve (DTMB); Calahan, Heather (DTMB); Brownlee, Jeff (DTMB)  
**Cc:** Cook, Rebecca (DTMB)  
**Subject:** RE: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint

Hi Steve:

You would only receive this email if you were identified as a custodian who likely has information that includes certain search terms. I am not disputing your involvement; however, I would need Mr. Brownlee or his delegate to inform me that you are in fact a custodian of information that contains certain search terms. Jean

Jean M. Ingersoll, JD  
Michigan Department of Technology, Management & Budget  
Lewis Cass Building  
320 South Walnut St.  
PO Box 30026  
Lansing, MI 48909  
517-241-8844 (O)  
517-282-2474 (C)  


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**From:** Rigg, Steve (DTMB)  
**Sent:** Thursday, February 18, 2016 8:32 AM  
**To:** Ingersoll, Jean (DTMB)  
**Cc:** Cook, Rebecca (DTMB)  
**Subject:** FW: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint  
**Importance:** High

Hi Jean,

I have not been getting any of these emails. Could you please add me to this email list? I manage the Home Depot and Grainger contracts and I have been highly involved in helping coordinate the procurement of the water filters, bottled water, and plumbing materials for Flint. I just want to make sure I'm not missing anything. Thanks.

*Steve Rigg*

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

<< OLE Object: Picture (Device Independent Bitmap) >>

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, February 18, 2016 8:14 AM  
**To:** Rigg, Steve (DTMB) <RiggS@michigan.gov>  
**Subject:** FW: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint  
**Importance:** High

Are you getting these emails?

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**From:** DTMB-Directors-Office  
**Sent:** Thursday, February 18, 2016 8:13 AM  
**To:** Behen, David (DTMB) <Behend@michigan.gov>; Donnan, Chanda (DTMB) <DonnanC@michigan.gov>; Buhs, Caleb (DTMB) <BuhsC@michigan.gov>; Davenport, Rodney (DTMB) <DavenportR1@michigan.gov>; Gelisse, Ashley (DTMB) <GelisseA@michigan.gov>; Gilliland, Michael (DTMB) <gillilandm@michigan.gov>; Spaniolo, Natalie (DTMB) <spaniolon@michigan.gov>; Wilke, Lacey (DTMB) <WilkeL@michigan.gov>; Stansfield, Marsha (DTMB) <StansfieldM@michigan.gov>; Ballard, Denice (DTMB) <ballardd@michigan.gov>; Hampton, Trisha (DTMB) <HamptonT@michigan.gov>; DeCamp, Greg (DTMB) <DeCampG1@michigan.gov>; Gibson, Jennifer (DTMB) <GibsonJ@michigan.gov>; Hengesbach, Dane (DTMB) <hengesbachd@michigan.gov>; Ingersoll, Jean (DTMB) <IngersollJ@michigan.gov>; Jeffery, Phillip (DTMB) <JefferyP@michigan.gov>; Philip, Brandon (DTMB) <philipb@michigan.gov>; Kopacsi, Christian (DTMB) <KopacsiC@michigan.gov>; Doll, Jeanette (DTMB) <dollj@michigan.gov>; McKee, Ryan (DTMB) <mckeer1@michigan.gov>; Pratt, Jeff (DTMB) <prattj@michigan.gov>; Knapp, Kathy (DTMB) <knappk1@michigan.gov>; Bidelman, Craig (DTMB) <BidelmanC@michigan.gov>; Bussema, Terry (DTMB) <Bussemat@michigan.gov>; Rokely, Rick (DTMB) <RokelyR1@michigan.gov>; Tefft, Niki (DTMB) <tefftN@michigan.gov>; Schlegel, Nicolle (DTMB) <SchlegelN@michigan.gov>; Parker, Alexandra (DTMB) <ParkerA8@michigan.gov>; Keilen, Elizabeth (DTMB) <KeilenE1@michigan.gov>; McPherson, Victoria (DTMB) <McPhersonV@michigan.gov>; Christensen, Chris (DTMB) <christensenc4@michigan.gov>; Lawson, Michelle (DTMB) <LawsonM1@michigan.gov>; Nevai, Tom (DTMB) <NevaiT@michigan.gov>; Evans, Carter (DTMB) <EvansC8@michigan.gov>; Fick, James (DTMB) <FickJ@michigan.gov>; McKee, Robert (DTMB) <McKeeR2@michigan.gov>; Perry, Blane (DTMB) <PerryB4@michigan.gov>; Riddering, Eric (DTMB) <RidderingE@michigan.gov>; Rodgers, Anthony (DTMB) <RodgersA1@michigan.gov>; Trial, Larry (DTMB) <TriallL@michigan.gov>; Thompson, Kyleigh (DTMB) <ThompsonK18@michigan.gov>; Glomski, Tom (DTMB) <glomskit@michigan.gov>; Seger, Seth (DTMB) <SegerS@michigan.gov>; Lee, Timothy (DTMB) <LeeT9@michigan.gov>; Sikkema, Tyler (DTMB) <SikkemaT@michigan.gov>; Manning, Kelly (DTMB) <ManningK4@michigan.gov>; McFarlane, James (DTMB) <mcfarlanej@michigan.gov>; Galeazzi, Tiziana (DTMB) <galeazzit@michigan.gov>; Das, Rajiv (DTMB) <DasR@michigan.gov>; Pung, Linda (DTMB) <PUNGL2@michigan.gov>; Hogan, James (DTMB) <hoganj@michigan.gov>; Westfall, Laurie (DTMB) <WestfallL@michigan.gov>; Palmer, Jason (DTMB) <PalmerJ2@michigan.gov>; Stibitz, Brom (DTMB) <StibitzB@michigan.gov>; Trakul, Pamela (DTMB) <TrakulP@michigan.gov>; Swanson, Eric (DTMB) <swansone@michigan.gov>; Blastic, Laura (DTMB) <blastid@michigan.gov>; Furseth, Kristen (DTMB) <Fursethk@michigan.gov>; Brancheau, Laura (DTMB) <Brancheaul@michigan.gov>; Sebok, Yvonne (DTMB) <SebokY@michigan.gov>; Stankiewicz, Richard (DTMB) <StankiewiczR@michigan.gov>; Vera, Jason (DTMB) <VeraJ@michigan.gov>; Jehnsen, Jeremy W (DTMB) <JehnsenJ@michigan.gov>; Jodway, Kenneth (DTMB) <JodwayK@michigan.gov>; Newman, Jeremy (DTMB) <NewmanJ2@michigan.gov>; Vijayaveeraraghavan, Anupkumar (DTMB) <VijayaveeraraghavanA@michigan.gov>; Harmon, Paul (DTMB) <harmonp@michigan.gov>; Root, Everett (DTMB) <RootE@michigan.gov>; Pauley, Suzanne (DTMB) <PauleyS@michigan.gov>; Thompson, John (DTMB) <thompsonj@michigan.gov>; Nolan, Anne (DTMB) <nolana@michigan.gov>; Peterson, Rick (DTMB) <petersonr@michigan.gov>; Stiffler, Michelle (DTMB) <StifflerM@michigan.gov>; Patke, Sunit (DTMB) <patkes1@michigan.gov>; Estill, John (DTMB) <EstillJ@michigan.gov>; Seckelman, Joe (DTMB) <SeckelmanJ@michigan.gov>; Martin, Ellen (DTMB) <MartinE@michigan.gov>; Aprill, Brian (DTMB) <aprillb@michigan.gov>; Ross, Josh (DTMB) <rossi@michigan.gov>; Locke, Joel (DTMB) <lockej@michigan.gov>; Cross, Steven (DTMB) <crosss3@michigan.gov>; Clark, John (DTMB) <clarkjs@michigan.gov>; Olkowski, Tony (DTMB)

<OlkowskiT@michigan.gov>; Noldy, Scott (DTMB) <NoldyS@michigan.gov>; Baer, John (DTMB) <BAERJ@michigan.gov>; Dickinson, Holly (DTMB) <DickinsonH1@michigan.gov>; Post, Corey (DTMB) <postc1@michigan.gov>; Cantin, David (DTMB) <CantinD@michigan.gov>; Brun, Jeremy (DTMB) <BrunJ@michigan.gov>; Hartsuff, Lisa (DTMB) <HartsuffL@michigan.gov>; Kosloski, Joni (DTMB) <kosloskiJ2@michigan.gov>; Jordan, Gerald (DTMB) <jordang@michigan.gov>; Sweeney, Matthew (DTMB) <SweeneyM1@michigan.gov>; Turnquist, Michael (DTMB) <TurnquistM@michigan.gov>; Morgan, Dan (DTMB) <morgand@michigan.gov>; Droste, Kerri (DTMB) <drostek@michigan.gov>; Paasch, Keith (DTMB) <paaschK@michigan.gov>; Scates, Larry (DTMB) <scatesl@michigan.gov>; Noonan, Michael (DTMB) <noonanm@michigan.gov>; Walts, Brian (DTMB) <WaltsB@michigan.gov>; Martin, Ric (DTMB) <MartinR3@michigan.gov>; Burns, Robert (DTMB) <BurnsR@michigan.gov>; Doxie, William (DTMB) <DoxieW@michigan.gov>; Clark, Jim (DTMB) <clarkj1@michigan.gov>; Bailey, Maureen (DTMB) <baileym1@michigan.gov>; Bos, Troy (DTMB) <bost@michigan.gov>; Phillippo, Jamie (DTMB) <PhillippoJ@michigan.gov>; Spitzley, Troy (DTMB) <SpitzleyT@michigan.gov>; Darby, Marchan (DTMB) <DarbyM@michigan.gov>; Hawes, Keith (DTMB) <HawesK@michigan.gov>; Wright, Seth (DTMB) <WrightS17@michigan.gov>; Rambo, Carolyn (DTMB) <RamboC1@michigan.gov>; Millimaki, Shelly (DTMB) <MillimakiS@michigan.gov>; Nelson, Christopher (DTMB) <NelsonC12@michigan.gov>; Murphy, Chris (DTMB) <murphyc2@michigan.gov>; Clark, Stephanie (DTMB) <clarks18@michigan.gov>; Cischke, Roy (DTMB) <cischker@michigan.gov>; Hofmeister, David (DTMB) <HofmeisterD@michigan.gov>; Reynolds, Vince (DTMB) <reynoldsv@michigan.gov>; VanCoevering, Joyce (DTMB) <VancoeveringJ1@michigan.gov>; Ragla, Beth (DTMB) <raglab1@michigan.gov>; Shaw, Gary (DTMB) <shawg@michigan.gov>; Wonn, Michael (DTMB) <wonnm@michigan.gov>; Thompson, Kristi (DTMB) <thompsonk1@michigan.gov>; Goodine, Tom (DTMB) <goodinet@michigan.gov>; Armstrong, Mike (DTMB) <armstrongm@michigan.gov>; Doyle, James (DTMB) <DoyleJ1@michigan.gov>; Hampton, Kristen (DTMB) <HamptonK@michigan.gov>; Miller, Mark (DTMB) <millerm13@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Waltersdorf, Rex (DTMB) <WaltersdorfR@michigan.gov>; Monroe, Jerry (DTMB) <monroel1@michigan.gov>; Bergan, Kristin (DTMB) <bergank@michigan.gov>; Banks, William (DTMB) <banksw@michigan.gov>; Dyson, Mike (DTMB) <dysonm@michigan.gov>; Stiles, Dan (DTMB) <stilesd1@michigan.gov>; Chipman, Dan (DTMB) <chipmand@michigan.gov>; Hodgman, Steve (DTMB) <hodgmans@michigan.gov>; Martin, Todd (DTMB) <martint1@michigan.gov>; Weston, Jessica (DTMB) <WestonJ2@michigan.gov>; Fitton, Scott (DTMB) <FittonS2@michigan.gov>; Sample, Brice (DTMB) <sampleb@michigan.gov>; Vanden Bosch, Kerrie (DTMB) <vandenboschk@michigan.gov>; Wellman, Jeff (DTMB) <WellmanJ1@michigan.gov>; Brownlee, Jeff (DTMB) <Brownleel@michigan.gov>; Maynard, Sharon (DTMB) <mavnards1@michigan.gov>; Calahan, Heather (DTMB) <CALAHANH@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hayes, Genevieve (DTMB) <HayesG2@michigan.gov>; Riehle, Jenni (DTMB) <RiehleJ2@michigan.gov>; Falik, Tom A. (DTMB) <FalikT@michigan.gov>; Pemble, William (DTMB) <PembleW@michigan.gov>; Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>; Cieciva, Sue (DTMB) <ciecivas@michigan.gov>; Hunter, Lymon (DTMB) <hunterl@michigan.gov>; Dufour, Yvon (DTMB) <DufourY@michigan.gov>; Camp, William (DTMB) <CampW@michigan.gov>; Hatch, David (DTMB) <HatchD@michigan.gov>; Troub, Shelby (DTMB) <TroubS1@michigan.gov>; Epps, Stephanie (DTMB) <eppss@michigan.gov>; Herman, Christyn (DTMB) <HermanC3@michigan.gov>; Bliss, Mike (DTMB) <blissm@michigan.gov>; Guardiola, Jamie (DTMB) <GuardiolaJ1@michigan.gov>; 'jfoley@us.ibm.com' <jfoley@us.ibm.com>

**Cc:** Stanaway, Deb (DTMB) <StanawayD@michigan.gov>; Huhn, Jacqueline (DTMB) <huhnj@michigan.gov>; McQuaid, John (DTMB) <mcquaidj@michigan.gov>; Reasner, Richard (DTMB) <ReasnerR@michigan.gov>; Rakowski, Rock (DTMB) <RakowskiJ@michigan.gov>; Gonzalez, Tonyia (DTMB) <GonzalezT1@michigan.gov>; Doerr, Stephen (DTMB) <DoerrS1@michigan.gov>; Isaacs, Jan (DTMB) <isaacsi@michigan.gov>

**Subject:** RE: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint  
**Importance:** High

**Please note the attached document has been updated. Please discard the previous version. A paper copy will be provided to you at the meeting.**

<< File: All DTMB Custodians of Correspondence Related to Flint - UPDATED.pdf >>

-----Original Appointment-----

**From:** Longanbach, Janelle (DTMB) **On Behalf Of** DTMB-Directors-Office

**Sent:** Wednesday, February 17, 2016 1:21 PM

**Subject:** Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint

**When:** Thursday, February 18, 2016 2:00 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:** Ottawa Building - Upper Level – Conference Room 4 OR Call-in: 866-390-1828 access code: 1842654

*Please note this meeting can be attended in person or via conference call-in. Location and Dial in information are provided below.*

<< File: All DTMB Custodians of Correspondence Related to Flint.pdf >>

**\*This attachment was updated 2/18/16**

\*See agenda below

**Requested By:**

DTMB Executive Staff

**Location:**

Ottawa Building

Upper Level – Conference Room 4

611 W. Ottawa Street

Lansing, MI 48933

Call-in: 866-390-1828

Access code: 1842654

**Security:**

Please have your State Employee ID showing at all times.

**Parking:**

Metered parking is available along Ottawa and Pine street.

**Briefing:**

In recent months, the State of Michigan has received a number of requests to produce documents related to the water emergency in Flint. You have been identified as a potential custodian of relevant/responsive correspondence and/or documents related to these requests. As a custodian, you are required to produce, by a certain date, any documents containing certain search terms. In this meeting we will review instructions for the process of identifying, compiling, scanning, and copying the necessary information.

**Agenda**

- 1) Kickoff – Brom Stibitz, Chief Deputy Director
- 2) Why you are here – Jean Ingersoll, Interim Chief of Staff
- 3) What you need to do (February 22, 2016 deadline) – Jean
- 4) What will be done for you – Jean
- 5) What's next – Jean
- 6) Public Information Reminder – Caleb Buhs, Public Information Officer

## 7) Questions and Answers - Group

### **SOM Meeting Contact:**

Janelle Longanbach

[LonganbachJ@michigan.gov](mailto:LonganbachJ@michigan.gov)

Office: 517-373-4210

### **Participants:**

David Behen

Chanda Donnan

Caleb Buhs

Rodney Davenport

Ashley Gelisse

Michael Gilliland

Natalie Spaniolo

Lacy Wilke

Marsha Stansfield

Denice Ballard

Trisha Hampton

Greg DeCamp

Jennifer Gibson

Dane Hengesbach

Jean Ingersoll

Phillip Jeffery

Brandon Philip

Christian Kopacsi

Jeanette Doll

Ryan McKee

Jeff Pratt

Kathy Knapp

Craig Bidelman

Terry Bussema

Rick Rokely

Niki Tefft

Nicolle Schlegel

Alexandrea Parker

Elizabeth Keilen

Vicki McPherson

Chris Christensen

Michelle Lawson

Tom Nevai

Carter Evans

James Fick

Robert McKee

Blane Perry

Eric Riddering

Anthony Rodgers

Larry Trial

Kyleigh Thompson

Tom Glomski

Seth Seger

Tim Lee



Tyler Sikkema  
Kelly Manning  
James McFarlane  
Tiziana Galeazzi  
Rajiv Das  
Linda Pung  
James Hogan  
Laurie Westfall  
Jason Palmer  
Brom Stibitz  
Pam Trakul  
Eric Swanson  
Laura Blastic  
Kristen Furseth  
Laura Brancheau  
Yvonne Sebok  
Richard Stankiewicz  
Jason Vera  
Jeremy Jehnsen  
Ken Jodway  
Jeremy Newman  
Anup Vijay  
Paul Harmon  
Everett Root  
Suzanne Pauley  
John Thompson  
Anne Nolan  
Rick Peterson  
Michelle Stiffler  
Sunit Patke  
James Foley  
John Estill  
Joe Seckelman  
Ellen Martin  
Brian Aprill  
Josh Ross  
Joel Locke  
Steven Cross  
John Clark  
Tony Olkowski  
Scott Noldy  
John Baer  
Holly Dickinson  
Corey Post  
David Cantin  
Jeremy Brun  
Lisa Hartsuff  
Joni Kosloski  
Gerald Jordon  
Matthew Sweeney  
Michael Turnquist  
Dan Morgan

Kerri Droste  
Keith Paasch  
Larry Scates  
Mike Noonan  
Brian Walts  
Ric Martin  
Robert Burns  
William Doxie  
Jim Clark  
Maureen Bailey  
Troy Bos  
Jamie Phillippo  
Troy Spitzley  
Marchan Darby  
Keith Hawes  
Seth Wright  
Carrie Rambo  
Shelly Millimaki  
Chris Nelson  
Chris Murphy  
Stephanie Clark  
Roy Cischke  
David Hofmeister  
Vince Reynolds  
Joyce Van Coevering  
Beth Ragla  
Gary Shaw  
Mike Wonn  
Kristi Thompson  
Thomas Goodine  
Mike Armstrong  
Jim Doyle  
Kristen Hampton  
Mark Miller  
Tom Cooley  
Rex Waltersdorf  
Jerry Monroe  
Kristin Bergan  
William Banks  
Mike Dyson  
Dan Stiles  
Dan Chipman  
Steve Hodgman  
Todd Martin  
Jessie Weston  
Scott Fitton  
Brice Sample  
Kerrie Vanden Bosch  
Jeff Wellman  
Jeff Brownlee  
Sharon Maynard  
Heather Calahan

Rebecca Cook  
Genevieve Hayes  
Jennifer Riehle  
Tom Falik  
Bill Pemble  
Melissa Sambiagio  
Sue Ciecwa  
Lymon Hunter  
Yvon Dufour  
Will Camp  
David Hatch  
Shelby Troub  
Stephanie Epps

<< File: All DTMB Custodians of Correspondence Related to Flint - UPDATED.pdf >>

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**From:** Calahan, Heather (DTMB)  
**Sent:** Thursday, February 18, 2016 8:56 AM  
**To:** Ingersoll, Jean (DTMB); Rigg, Steve (DTMB); Brownlee, Jeff (DTMB)  
**Cc:** Cook, Rebecca (DTMB)  
**Subject:** RE: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint

Jean,

Steve should be included on the list.

Heather

---

**From:** Ingersoll, Jean (DTMB)  
**Sent:** Thursday, February 18, 2016 8:36 AM  
**To:** Rigg, Steve (DTMB) <RiggS@michigan.gov>; Calahan, Heather (DTMB) <CALAHANH@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Cc:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Subject:** RE: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint

Hi Steve:

You would only receive this email if you were identified as a custodian who likely has information that includes certain search terms. I am not disputing your involvement; however, I would need Mr. Brownlee or his delegate to inform me that you are in fact a custodian of information that contains certain search terms. Jean

Jean M. Ingersoll, JD  
Michigan Department of Technology, Management & Budget  
Lewis Cass Building  
320 South Walnut St.  
PO Box 30026  
Lansing, MI 48909  
517-241-8844 (O)  
517-282-2474 (C)  
<< OLE Object: Picture (Device Independent Bitmap) >>

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**From:** Rigg, Steve (DTMB)  
**Sent:** Thursday, February 18, 2016 8:32 AM  
**To:** Ingersoll, Jean (DTMB)  
**Cc:** Cook, Rebecca (DTMB)  
**Subject:** FW: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint  
**Importance:** High

Hi Jean,

I have not been getting any of these emails. Could you please add me to this email list? I manage the Home Depot and Grainger contracts and I have been highly involved in helping coordinate the

procurement of the water filters, bottled water, and plumbing materials for Flint. I just want to make sure I'm not missing anything. Thanks.

**Steve Rigg**

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

<< OLE Object: Picture (Device Independent Bitmap) >>

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, February 18, 2016 8:14 AM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** FW: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint  
**Importance:** High

Are you getting these emails?

---

**From:** DTMB-Directors-Office  
**Sent:** Thursday, February 18, 2016 8:13 AM  
**To:** Behen, David (DTMB) <[Behend@michigan.gov](mailto:Behend@michigan.gov)>; Donnan, Chanda (DTMB) <[DonnanC@michigan.gov](mailto:DonnanC@michigan.gov)>; Buhs, Caleb (DTMB) <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>; Davenport, Rodney (DTMB) <[DavenportR1@michigan.gov](mailto:DavenportR1@michigan.gov)>; Gelisse, Ashley (DTMB) <[GelisseA@michigan.gov](mailto:GelisseA@michigan.gov)>; Gilliland, Michael (DTMB) <[gillilandm@michigan.gov](mailto:gillilandm@michigan.gov)>; Spaniolo, Natalie (DTMB) <[spaniolon@michigan.gov](mailto:spaniolon@michigan.gov)>; Wilke, Lacey (DTMB) <[WilkeL@michigan.gov](mailto:WilkeL@michigan.gov)>; Stansfield, Marsha (DTMB) <[StansfieldM@michigan.gov](mailto:StansfieldM@michigan.gov)>; Ballard, Denise (DTMB) <[ballardd@michigan.gov](mailto:ballardd@michigan.gov)>; Hampton, Trisha (DTMB) <[HamptonT@michigan.gov](mailto:HamptonT@michigan.gov)>; DeCamp, Greg (DTMB) <[DeCampG1@michigan.gov](mailto:DeCampG1@michigan.gov)>; Gibson, Jennifer (DTMB) <[GibsonJ@michigan.gov](mailto:GibsonJ@michigan.gov)>; Hengesbach, Dane (DTMB) <[hengesbachd@michigan.gov](mailto:hengesbachd@michigan.gov)>; Ingersoll, Jean (DTMB) <[IngersollJ@michigan.gov](mailto:IngersollJ@michigan.gov)>; Jeffery, Phillip (DTMB) <[JefferyP@michigan.gov](mailto:JefferyP@michigan.gov)>; Philip, Brandon (DTMB) <[phillipb@michigan.gov](mailto:phillipb@michigan.gov)>; Kopacsi, Christian (DTMB) <[KopacsiC@michigan.gov](mailto:KopacsiC@michigan.gov)>; Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; McKee, Ryan (DTMB) <[mckeer1@michigan.gov](mailto:mckeer1@michigan.gov)>; Pratt, Jeff (DTMB) <[pratti@michigan.gov](mailto:pratti@michigan.gov)>; Knapp, Kathy (DTMB) <[knappk1@michigan.gov](mailto:knappk1@michigan.gov)>; Bidelman, Craig (DTMB) <[BidelmanC@michigan.gov](mailto:BidelmanC@michigan.gov)>; Bussema, Terry (DTMB) <[Bussemat@michigan.gov](mailto:Bussemat@michigan.gov)>; Rokely, Rick (DTMB) <[RokelyR1@michigan.gov](mailto:RokelyR1@michigan.gov)>; Tefft, Niki (DTMB) <[tefftn@michigan.gov](mailto:tefftn@michigan.gov)>; Schlegel, Nicolle (DTMB) <[SchlegelN@michigan.gov](mailto:SchlegelN@michigan.gov)>; Parker, Alexandra (DTMB) <[ParkerA8@michigan.gov](mailto:ParkerA8@michigan.gov)>; Keilen, Elizabeth (DTMB) <[KeilenE1@michigan.gov](mailto:KeilenE1@michigan.gov)>; McPherson, Victoria (DTMB) <[McPhersonV@michigan.gov](mailto:McPhersonV@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Lawson, Michelle (DTMB) <[LawsonM1@michigan.gov](mailto:LawsonM1@michigan.gov)>; Nevai, Tom (DTMB) <[NevaiT@michigan.gov](mailto:NevaiT@michigan.gov)>; Evans, Carter (DTMB) <[EvansC8@michigan.gov](mailto:EvansC8@michigan.gov)>; Fick, James (DTMB) <[FickJ@michigan.gov](mailto:FickJ@michigan.gov)>; McKee, Robert (DTMB) <[McKeeR2@michigan.gov](mailto:McKeeR2@michigan.gov)>; Perry, Blane (DTMB) <[PerryB4@michigan.gov](mailto:PerryB4@michigan.gov)>; Riddering, Eric (DTMB) <[RidderingE@michigan.gov](mailto:RidderingE@michigan.gov)>; Rodgers, Anthony (DTMB) <[RodgersA1@michigan.gov](mailto:RodgersA1@michigan.gov)>; Trial, Larry (DTMB) <[TrialL@michigan.gov](mailto:TrialL@michigan.gov)>; Thompson, Kyleigh (DTMB) <[ThompsonK18@michigan.gov](mailto:ThompsonK18@michigan.gov)>; Glomski, Tom (DTMB) <[glomskit@michigan.gov](mailto:glomskit@michigan.gov)>; Seger, Seth (DTMB) <[SegerS@michigan.gov](mailto:SegerS@michigan.gov)>; Lee, Timothy (DTMB) <[LeeT9@michigan.gov](mailto:LeeT9@michigan.gov)>; Sikkema, Tyler (DTMB) <[SikkemaT@michigan.gov](mailto:SikkemaT@michigan.gov)>; Manning, Kelly (DTMB) <[ManningK4@michigan.gov](mailto:ManningK4@michigan.gov)>; McFarlane, James (DTMB) <[mcfarlanej@michigan.gov](mailto:mcfarlanej@michigan.gov)>; Galeazzi, Tiziana (DTMB) <[galeazzit@michigan.gov](mailto:galeazzit@michigan.gov)>; Das, Rajiv (DTMB) <[DasR@michigan.gov](mailto:DasR@michigan.gov)>; Pung, Linda (DTMB) <[PUNGL2@michigan.gov](mailto:PUNGL2@michigan.gov)>; Hogan, James (DTMB) <[hoganj@michigan.gov](mailto:hoganj@michigan.gov)>; Westfall, Laurie (DTMB) <[WestfallL@michigan.gov](mailto:WestfallL@michigan.gov)>; Palmer, Jason (DTMB) <[PalmerJ2@michigan.gov](mailto:PalmerJ2@michigan.gov)>; Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>; Trakul, Pamela (DTMB) <[TrakulP@michigan.gov](mailto:TrakulP@michigan.gov)>; Swanson, Eric (DTMB) <[swansone@michigan.gov](mailto:swansone@michigan.gov)>; Blastic, Laura (DTMB) <[blastid@michigan.gov](mailto:blastid@michigan.gov)>; Furseth, Kristen (DTMB)

<Fursethk@michigan.gov>; Brancheau, Laura (DTMB) <BrancheauL@michigan.gov>; Sebok, Yvonne (DTMB) <SebokY@michigan.gov>; Stankiewicz, Richard (DTMB) <StankiewiczR@michigan.gov>; Vera, Jason (DTMB) <Veral@michigan.gov>; Jehnsen, Jeremy W (DTMB) <JehnsenJ@michigan.gov>; Jodway, Kenneth (DTMB) <jodwayK@michigan.gov>; Newman, Jeremy (DTMB) <NewmanJ2@michigan.gov>; Vijayaveeraraghavan, Anupkumar (DTMB) <VijayaveeraraghavanA@michigan.gov>; Harmon, Paul (DTMB) <harmonp@michigan.gov>; Root, Everett (DTMB) <RootE@michigan.gov>; Pauley, Suzanne (DTMB) <PauleyS@michigan.gov>; Thompson, John (DTMB) <thompsonj@michigan.gov>; Nolan, Anne (DTMB) <nolana@michigan.gov>; Peterson, Rick (DTMB) <petersonr@michigan.gov>; Stiffler, Michelle (DTMB) <StifflerM@michigan.gov>; Patke, Sunit (DTMB) <patkes1@michigan.gov>; Estill, John (DTMB) <EstillJ@michigan.gov>; Seckelman, Joe (DTMB) <SeckelmanJ@michigan.gov>; Martin, Ellen (DTMB) <MartinE@michigan.gov>; Aprill, Brian (DTMB) <aprillb@michigan.gov>; Ross, Josh (DTMB) <rossj@michigan.gov>; Locke, Joel (DTMB) <lockej@michigan.gov>; Cross, Steven (DTMB) <crosss3@michigan.gov>; Clark, John (DTMB) <clarkjs@michigan.gov>; Olkowski, Tony (DTMB) <OlkowskiT@michigan.gov>; Noldy, Scott (DTMB) <NoldyS@michigan.gov>; Baer, John (DTMB) <BAERJ@michigan.gov>; Dickinson, Holly (DTMB) <DickinsonH1@michigan.gov>; Post, Corey (DTMB) <postc1@michigan.gov>; Cantin, David (DTMB) <CantinD@michigan.gov>; Brun, Jeremy (DTMB) <BrunJ@michigan.gov>; Hartsuff, Lisa (DTMB) <HartsuffL@michigan.gov>; Kosloski, Joni (DTMB) <kosloskij2@michigan.gov>; Jordan, Gerald (DTMB) <jordang@michigan.gov>; Sweeney, Matthew (DTMB) <SweeneyM1@michigan.gov>; Turnquist, Michael (DTMB) <TurnquistM@michigan.gov>; Morgan, Dan (DTMB) <morgand@michigan.gov>; Droste, Kerri (DTMB) <drostek@michigan.gov>; Paasch, Keith (DTMB) <paaschK@michigan.gov>; Scates, Larry (DTMB) <scatesl@michigan.gov>; Noonan, Michael (DTMB) <noonanm@michigan.gov>; Walts, Brian (DTMB) <WaltsB@michigan.gov>; Martin, Ric (DTMB) <MartinR3@michigan.gov>; Burns, Robert (DTMB) <BurnsR@michigan.gov>; Doxie, William (DTMB) <DoxieW@michigan.gov>; Clark, Jim (DTMB) <clarkj1@michigan.gov>; Bailey, Maureen (DTMB) <baileym1@michigan.gov>; Bos, Troy (DTMB) <bost@michigan.gov>; Phillippo, Jamie (DTMB) <PhillippoJ@michigan.gov>; Spitzley, Troy (DTMB) <SpitzleyT@michigan.gov>; Darby, Marchan (DTMB) <DarbyM@michigan.gov>; Hawes, Keith (DTMB) <HawesK@michigan.gov>; Wright, Seth (DTMB) <WrightS17@michigan.gov>; Rambo, Carolyn (DTMB) <RamboC1@michigan.gov>; Millimaki, Shelly (DTMB) <MillimakiS@michigan.gov>; Nelson, Christopher (DTMB) <NelsonC12@michigan.gov>; Murphy, Chris (DTMB) <murphyc2@michigan.gov>; Clark, Stephanie (DTMB) <clarks13@michigan.gov>; Cischke, Roy (DTMB) <cischker@michigan.gov>; Hofmeister, David (DTMB) <HofmeisterD@michigan.gov>; Reynolds, Vince (DTMB) <reynoldsv@michigan.gov>; VanCoevering, Joyce (DTMB) <Vancoeveringj1@michigan.gov>; Ragla, Beth (DTMB) <raglab1@michigan.gov>; Shaw, Gary (DTMB) <shawg@michigan.gov>; Wonn, Michael (DTMB) <wonnm@michigan.gov>; Thompson, Kristi (DTMB) <thompsonk1@michigan.gov>; Goodine, Tom (DTMB) <goodinet@michigan.gov>; Armstrong, Mike (DTMB) <armstrongm@michigan.gov>; Doyle, James (DTMB) <DoyleJ1@michigan.gov>; Hampton, Kristen (DTMB) <HamptonK@michigan.gov>; Miller, Mark (DTMB) <millerm13@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Waltersdorf, Rex (DTMB) <WaltersdorfR@michigan.gov>; Monroe, Jerry (DTMB) <monroel1@michigan.gov>; Bergan, Kristin (DTMB) <bergank@michigan.gov>; Banks, William (DTMB) <banksw@michigan.gov>; Dyson, Mike (DTMB) <dysonm@michigan.gov>; Stiles, Dan (DTMB) <stilesd1@michigan.gov>; Chipman, Dan (DTMB) <chipmand@michigan.gov>; Hodgman, Steve (DTMB) <hodgmans@michigan.gov>; Martin, Todd (DTMB) <martint1@michigan.gov>; Weston, Jessica (DTMB) <WestonJ2@michigan.gov>; Fitton, Scott (DTMB) <FittonS2@michigan.gov>; Sample, Brice (DTMB) <sampleb@michigan.gov>; Vanden Bosch, Kerrie (DTMB) <vandenboschk@michigan.gov>; Wellman, Jeff (DTMB) <WellmanJ1@michigan.gov>; Brownlee, Jeff (DTMB) <Brownleel@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Calahan, Heather (DTMB) <CALAHANH@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hayes, Genevieve (DTMB) <HayesG2@michigan.gov>; Riehle, Jenni (DTMB) <RiehleJ2@michigan.gov>; Falik, Tom A. (DTMB) <FalikT@michigan.gov>; Pemble, William (DTMB) <PembleW@michigan.gov>; Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>; Ciecwa, Sue (DTMB) <ciecwas@michigan.gov>; Hunter, Lymon (DTMB) <hunterl@michigan.gov>; Dufour, Yvon (DTMB) <DufourY@michigan.gov>; Camp, William (DTMB) <CampW@michigan.gov>; Hatch, David (DTMB) <HatchD@michigan.gov>; Troub, Shelby (DTMB) <TroubS1@michigan.gov>; Epps, Stephanie (DTMB) <eppss@michigan.gov>; Herman, Christyn (DTMB) <HermanC3@michigan.gov>; Bliss, Mike (DTMB) <blissm@michigan.gov>; Guardiola, Jamie (DTMB) <GuardiolaJ1@michigan.gov>; 'jfoley@us.ibm.com' <jfoley@us.ibm.com>

**Cc:** Stanaway, Deb (DTMB) <StanawayD@michigan.gov>; Huhn, Jacqueline (DTMB) <huhnj@michigan.gov>; McQuaid, John (DTMB) <mcquaidj@michigan.gov>; Reasner, Richard (DTMB) <ReasnerR@michigan.gov>; Rakowski, Rock (DTMB) <RakowskiJ@michigan.gov>; Gonzalez, Tonyia (DTMB) <GonzalezT1@michigan.gov>; Doerr, Stephen (DTMB) <DoerrS1@michigan.gov>; Isaacs, Jan (DTMB) <isaacsj@michigan.gov>

**Subject:** RE: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint

**Importance:** High

**Please note the attached document has been updated. Please discard the previous version. A paper copy will be provided to you at the meeting.**

<< File: All DTMB Custodians of Correspondence Related to Flint - UPDATED.pdf >>

-----Original Appointment-----

**From:** Longanbach, Janelle (DTMB) **On Behalf Of** DTMB-Directors-Office

**Sent:** Wednesday, February 17, 2016 1:21 PM

**Subject:** Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint

**When:** Thursday, February 18, 2016 2:00 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:** Ottawa Building - Upper Level – Conference Room 4 OR Call-in: 866-390-1828 access code: 1842654

*Please note this meeting can be attended in person or via conference call-in. Location and Dial in information are provided below.*

<< File: All DTMB Custodians of Correspondence Related to Flint.pdf >>

**\*This attachment was updated 2/18/16**

\*See agenda below

**Requested By:**

DTMB Executive Staff

**Location:**

Ottawa Building

Upper Level – Conference Room 4

611 W. Ottawa Street

Lansing, MI 48933

Call-in: 866-390-1828

Access code: 1842654

**Security:**

Please have your State Employee ID showing at all times.

**Parking:**

Metered parking is available along Ottawa and Pine street.

**Briefing:**

In recent months, the State of Michigan has received a number of requests to produce documents related to the water emergency in Flint. You have been identified as a potential custodian of relevant/responsive correspondence and/or documents related to these requests. As a custodian, you are required to produce, by a certain date, any documents containing certain search terms. In this meeting we will review instructions for the process of identifying, compiling, scanning, and copying the necessary information.

**Agenda**

- 1) Kickoff – Brom Stibitz, Chief Deputy Director
- 2) Why you are here – Jean Ingersoll, Interim Chief of Staff
- 3) What you need to do (February 22, 2016 deadline) – Jean
- 4) What will be done for you – Jean
- 5) What's next – Jean
- 6) Public Information Reminder – Caleb Buhs, Public Information Officer
- 7) Questions and Answers - Group

**SOM Meeting Contact:**

Janelle Longanbach

[LonganbachJ@michigan.gov](mailto:LonganbachJ@michigan.gov)

Office: 517-373-4210

**Participants:**

David Behen  
Chanda Donnan  
Caleb Buhs  
Rodney Davenport  
Ashley Gelisse  
Michael Gilliland  
Natalie Spaniolo  
Lacy Wilke  
Marsha Stansfield  
Denice Ballard  
Trisha Hampton  
Greg DeCamp  
Jennifer Gibson  
Dane Hengesbach  
Jean Ingersoll  
Phillip Jeffery  
Brandon Philip  
Christian Kopacsi  
Jeanette Doll  
Ryan McKee  
Jeff Pratt  
Kathy Knapp  
Craig Bidelman  
Terry Bussema  
Rick Rokely  
Niki Tefft  
Nicolle Schlegel  
Alexandrea Parker  
Elizabeth Keilen  
Vicki McPherson  
Chris Christensen



Michelle Lawson  
Tom Nevai  
Carter Evans  
James Fick  
Robert McKee  
Blane Perry  
Eric Riddering  
Anthony Rodgers  
Larry Trial  
Kyleigh Thompson  
Tom Glomski  
Seth Seger  
Tim Lee  
Tyler Sikkema  
Kelly Manning  
James McFarlane  
Tiziana Galeazzi  
Rajiv Das  
Linda Pung  
James Hogan  
Laurie Westfall  
Jason Palmer  
Brom Stibitz  
Pam Trakul  
Eric Swanson  
Laura Blastic  
Kristen Furseth  
Laura Brancheau  
Yvonne Sebok  
Richard Stankiewicz  
Jason Vera  
Jeremy Jehnsen  
Ken Jodway  
Jeremy Newman  
Anup Vijay  
Paul Harmon  
Everett Root  
Suzanne Pauley  
John Thompson  
Anne Nolan  
Rick Peterson  
Michelle Stiffler  
Sunit Patke  
James Foley  
John Estill  
Joe Seckelman  
Ellen Martin  
Brian Aprill  
Josh Ross  
Joel Locke  
Steven Cross  
John Clark

Tony Olkowski  
Scott Noldy  
John Baer  
Holly Dickinson  
Corey Post  
David Cantin  
Jeremy Brun  
Lisa Hartsuff  
Joni Kosloski  
Gerald Jordon  
Matthew Sweeney  
Michael Turnquist  
Dan Morgan  
Kerri Droste  
Keith Paasch  
Larry Scates  
Mike Noonan  
Brian Walts  
Ric Martin  
Robert Burns  
William Doxie  
Jim Clark  
Maureen Bailey  
Troy Bos  
Jamie Phillippo  
Troy Spitzley  
Marchan Darby  
Keith Hawes  
Seth Wright  
Carrie Rambo  
Shelly Millimaki  
Chris Nelson  
Chris Murphy  
Stephanie Clark  
Roy Cischke  
David Hofmeister  
Vince Reynolds  
Joyce Van Coevering  
Beth Ragla  
Gary Shaw  
Mike Wonn  
Kristi Thompson  
Thomas Goodine  
Mike Armstrong  
Jim Doyle  
Kristen Hampton  
Mark Miller  
Tom Cooley  
Rex Waltersdorf  
Jerry Monroe  
Kristin Bergan  
William Banks

Mike Dyson  
Dan Stiles  
Dan Chipman  
Steve Hodgman  
Todd Martin  
Jessie Weston  
Scott Fitton  
Brice Sample  
Kerrie Vanden Bosch  
Jeff Wellman  
Jeff Brownlee  
Sharon Maynard  
Heather Calahan  
Rebecca Cook  
Genevieve Hayes  
Jennifer Riehle  
Tom Falik  
Bill Pemble  
Melissa Sambiagio  
Sue Ciecwa  
Lymon Hunter  
Yvon Dufour  
Will Camp  
David Hatch  
Shelby Troub  
Stephanie Epps

<< File: All DTMB Custodians of Correspondence Related to Flint - UPDATED.pdf >>

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**From:** Riehle, Jenni (DTMB)  
**Sent:** Thursday, February 18, 2016 9:28 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Flint

Hi Jeff,

You had already sent this one to me and I had emailed you the following question about it:

*Did you want me to respond to him (and others like these you send me) or would you like me to just log his information into the current database? He is asking for a report which we do not have. We could just tell him that any specifications for purchases will be released when they are determined.*

*I don't think we are going to be able to just send the standard email to the inquires that come in from outside the system. Let me know, thanks.*

Can you advise on how or if I should be responding to these. Should I just always send the standard email or should I personalize it based on their questions/comments? I have already logged this one by the way.

Thanks,

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 18, 2016 9:25 AM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** Fwd: Flint

Another

Sent from my iPhone

Begin forwarded message:

**From:** Richard Brown <[rbrown@vogelandbrown.com](mailto:rbrown@vogelandbrown.com)>  
**Date:** February 16, 2016 at 12:29:30 PM EST  
**To:** "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
**Cc:** "DCawthorne@kelley-cawthorne.com" <[DCawthorne@kelley-cawthorne.com](mailto:DCawthorne@kelley-cawthorne.com)>, "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Re: Flint

Kevin,

Thank you for your response. I apologize for this rather informal iPhone response; however, I am off-site until Friday and wanted to respond quickly as this problem dictates.

Our team is working up a proposal to conduct an on-site Demo to process your source water directly into

a drinking glass.

However, as requested earlier, and I know you're in the process of building your team and dealing with 1000's of requests such as this, my engineers need a copy of your latest Water Test Lab Report which will identify all inclusive metals, minerals, microbial's, etc. in ppm's (Parts per Million), so we can set our patented equipment to remove all the undesirable elements from your water.

I am currently available by email and cell - 703-915-4318

Best regards,

Richard Brown  
President  
office 703-444-7978

aka Hot Dog  
Sent from my iPhone

On Feb 16, 2016, at 10:03, Weise, Kevin (MSP) <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)> wrote:

Hello Mr. Cawthorne and Mr. Brown: I'm Rich Baird's chief of staff for the Mission Flint Team. He asked me to respond to your inquiry. Since you last spoke, we have set up a team at DTMB to help coordinate all the offers of assistance that we have received. There have been well over a thousand so far and they keep coming in every day.

Mr. Jeff Brownlee is heading up the effort at DTMB and I have cc'd him here. I recommend that you send him the details on what your organization is looking to provide, along with any relevant informational items. We haven't done any procurement yet as the relief effort is still in the evaluation stage as to who needs what in the neighborhoods and what solutions are best implemented.

Thanks again for you interest.

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Thursday, February 18, 2016 11:19 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** RE: Flint water problems.

Got it, will do. Thanks.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 18, 2016 11:11 AM  
**To:** Riehle, Jenni (DTMB) <RiehleJ2@michigan.gov>  
**Subject:** RE: Flint water problems.

Jenni,  
I'd suggest you send something to each one, please. Use your judgment on what to say.  
Thanks,  
Jeff

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Thursday, February 18, 2016 11:00 AM  
**To:** Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Subject:** RE: Flint water problems.

This has been logged. (Still not sending responses to any email submissions unless you say to)

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 18, 2016 9:24 AM  
**To:** Riehle, Jenni (DTMB) <RiehleJ2@michigan.gov>  
**Subject:** Fwd: Flint water problems.

Here's one.

Sent from my iPhone

Begin forwarded message:

**From:** "Baird, Richard (GOV)" <bairdr@michigan.gov>  
**To:** "Weise, Kevin (MSP)" <WeiseK@michigan.gov>, "Brownlee, Jeff (DTMB)" <BrownleeJ@michigan.gov>  
**Subject:** Fwd: FW: Flint water problems.

Sent from my Verizon 4G LTE Droid

----- Forwarded message -----

From: "Scott, Allison (GOV)" <[scottal2@michigan.gov](mailto:scottal2@michigan.gov)>  
Date: Feb 16, 2016 9:46 AM  
Subject: FW: Flint water problems.  
To: "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
Cc: "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>

For your review

From: Jackie Goforth (US - Assurance) [<mailto:jacalyn.s.goforth@pwc.com>]  
Sent: Tuesday, February 16, 2016 9:33 AM  
To: Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
Cc: Richard L. Baird <[rbaird003@hotmail.com](mailto:rbaird003@hotmail.com)>; Scott, Allison (GOV) <[scottal2@michigan.gov](mailto:scottal2@michigan.gov)>  
Subject: Fwd: Flint water problems.

Rick,

First, let me say that my thoughts and prayers have been with you and your team. I can't even imagine the heartache you are experiencing over this situation.

You know how friends are, we can't help but try to see what ideas we can come up with to help provide some type of solution. One my High School friends thinks she and her family have one.

It is a Michigan based company that has a water filtration solution. Below is the information he shared with Debbie Stabenow, you may have already seen this, but in case you haven't I thought I would pass it along.

I can't think of a person better suited to lead us all through this situation. Thank you for your balanced and thoughtful leadership.

Kindest Regards,

Jackie

----- Forwarded message -----

From: Marybeth Novitsky <[mbmills989@gmail.com](mailto:mbmills989@gmail.com)<<mailto:mbmills989@gmail.com>>>

Date: Mon, Feb 15, 2016 at 7:54 PM

Subject: Fwd: Flint water problems.

To: [jacalyn.s.goforth@us.pwc.com](mailto:jacalyn.s.goforth@us.pwc.com)<<mailto:jacalyn.s.goforth@us.pwc.com>>,

[jacalyn.s.goforth@pwc.com](mailto:jacalyn.s.goforth@pwc.com)<<mailto:jacalyn.s.goforth@pwc.com>>

Cc: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)<<mailto:joe@jsn-aia.com>>>

Jackie -

Here is the letter that Joe sent to Senator Stabenow. Since then, the Merlin was installed at St Mary's church to supply water for the homeless, in their shelter. The next Merlin will be installed at St Luke's Women's and Children's Center. Thank you for your efforts.

We appreciate it.

Marybeth

----- Forwarded message -----

From: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)<<mailto:joe@jsn-aia.com>>>

Date: Thu, Jan 28, 2016 at 12:45 PM

Subject: Flint water problems.

To: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)<<mailto:joe@jsn-aia.com>>>

Good Morning Senator.

Please take the time to read this—WE CAN HELP--

This is Joe Novitsky, Architect and inventor of a water purifier that can eliminate or minimize the bottled water eco disaster pending in Flint.

We have been studying the problem, testing the water, and watched you last night on Rachael's



show.

YOU DID GREAT! You are the ONLY one that understands the problem right now—even Rachael is not as clear as you on the solution.

Yes, we need filtered water and no one is ever going to dig up the entire City—the pipes will re-coat, and the new supply from Lake Huron will be complete within 18 months and the City system will again be healthy, but what to do until then?

We have a plan.

Of the 100K residents affected we estimate 25,000 households, and 14,000 businesses, based on information taken from the internet.

Each household of 4 needs 5 gallons per day for drinking and cooking.

We can service this need with approximately 300 units, distributed across the City with the HELP OF the COMMUNITY, and that is where you come in. These Places distributing water must be relieved from paying for the water being distributed. If that can be accomplished, we can solve this 18 month problem for about \$2.5M—FAR LESS than any other proposed effort we have heard about.

We would recommend filtered shower heads, ( about \$50 each), maybe for the clothes washer as well, and one Merlin Eco Solutions unit for about 80-100 homes ( one unit / station per every three blocks), at \$2,000 each, installed by currently unemployed technicians and Vets- that will be paid to do this. We could distribute in 5 gallon camping containers, and each resident would have to lug their daily water no more than a block and a half. It's a pain – but what other REAL choice do we have? The filters they are distributing now are good for 100 gallons, untested, and again an eco-disaster in and of themselves. Our lead filters do not have to be changed for up to 10,000 each and the first primary filter is ceramic and can be cleaned re-used for as many as half a million gallons each!

This same equivalent in bottled water equals 1,250,000 bottles spent PER DAY!! The raw cost, ( \$1/bottle) and associated cost of the current campaign are certainly not sustainable nor acceptable. Have you ever tried to shower with a bottle of water?

Please see the Flint water test results attached. A photo of one that was being installed in a Flint shelter is also attached. The two samples in the other photos are from Michigan Works!, just down the street from your Office, before and after purifying.

Our website is: [www.merlinecosolutions.com](http://www.merlinecosolutions.com)<<http://www.merlinecosolutions.com>>

We are currently working on getting one or two installed at St. Mary's Church currently servicing the bottle distribution, homeless shelter and Michael's Soup Kitchen. This will make an immediate contribution and difference. We did this with funds from GoFundMe site and contributions! (see attached). By the time we get something going with you, you will have their support as we took their water samples yesterday and they are being tested today. Deacon Paul is our contact there. We are currently attempting to help Dr. Mona as well----

FYI—Stanford University Medical Staff, Dr. Weiss, has endorsed this unit and science and Michigan State Chemistry and Biology Labs and Students will be monitoring the units we install to safeguard the residents and process. National Testing Labs have been the Lab we are using to date., (see attached).

I can be reached and will come demonstrate and show off our unit and results whenever you have time – if you are inclined to help us.

Thanks for the time--- and your awareness--- and focus on the solution—

Sincerely,

Joseph S. Novitsky, AIA

Merlin Eco Solutions

O (248) 433-2030

M (586) 995-2170

[Joe@JSN-AIA.com](mailto:Joe@JSN-AIA.com)<<mailto:Joe@JSN-AIA.com>>

Skype: JoeN-AIA

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[Avast logo]<<http://www.avast.com/>>

This email has been checked for viruses by Avast antivirus software.  
[www.avast.com](http://www.avast.com/)<<http://www.avast.com/>>

----- Forwarded message -----

From: Charles Chervenka <[cjchervenka@gmail.com](mailto:cjchervenka@gmail.com)<<mailto:cjchervenka@gmail.com>>>  
To: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)<<mailto:joe@jsn-aia.com>>>  
Cc:  
Date: Tue, 12 Jan 2016 20:36:17 -0500  
Subject: Fwd: Lynn posted an update on "Water Purifier for Mission of Hope"

Here's the site for funding. Just click on it.

To get the test data google Merlin Eco Solutions and then click on "test results" at the top of the page.

CJC

----- Forwarded message -----

From: Lynn via GoFundMe <[messages@gofundme.com](mailto:messages@gofundme.com)<<mailto:messages@gofundme.com>>>  
Date: Tue, Jan 12, 2016 at 9:56 AM  
Subject: Lynn posted an update on "Water Purifier for Mission of Hope"  
To: [cjchervenka@gmail.com](mailto:cjchervenka@gmail.com)<<mailto:cjchervenka@gmail.com>>

Hi Charles A new update has been posted to Water Purifier for Mission of Hope Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't need...

[<https://febc376daf6131a28181-3721cc30b0d63259b2211381d1431a50.ssl.cf1.rackcdn.com/logo-email-v5@2x.png>]

Charles, I posted an update on

#### Water Purifier for Mission of Hope

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBR0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBR0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>

Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't need...

#### View Campaign

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBR0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBR0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>

[urce%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dcta\\_button%26utm\\_campaign%3Dupd\\_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUElEXzExMzM7MXw3NzY2NjM6UVVVFVUVJRf8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQULOX2dtYWlsLmNvbTs%3D](https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293_1452465809.8834.png)>

[[https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293\\_1452465809.8834.png](https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293_1452465809.8834.png)]<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUElEXzExMzM7MXw3NzY2NjM6UVVVFVUVJRf8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQULOX2dtYWlsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUElEXzExMzM7MXw3NzY2NjM6UVVVFVUVJRf8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQULOX2dtYWlsLmNvbTs%3D)>

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**From:** Ingersoll, Jean (DTMB)  
**Sent:** Thursday, February 18, 2016 11:25 AM  
**To:** Brownlee, Jeff (DTMB); Rigg, Steve (DTMB); Calahan, Heather (DTMB)  
**Cc:** Cook, Rebecca (DTMB)  
**Subject:** RE: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint

We have it covered. I will see some of you at 2:00. Jean

Jean M. Ingersoll, JD  
Michigan Department of Technology, Management & Budget  
Lewis Cass Building  
320 South Walnut St.  
PO Box 30026  
Lansing, MI 48909  
517-241-8844 (O)  
517-282-2474 (C)



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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 18, 2016 11:23 AM  
**To:** Ingersoll, Jean (DTMB); Rigg, Steve (DTMB); Calahan, Heather (DTMB)  
**Cc:** Cook, Rebecca (DTMB)  
**Subject:** RE: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint

Steve is definitely a custodian. Not sure why his name would have been omitted. I apologize if this causes an inconvenience.

Steve, please join Rebecca for the call this afternoon.

---

**From:** Ingersoll, Jean (DTMB)  
**Sent:** Thursday, February 18, 2016 8:36 AM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Calahan, Heather (DTMB) <[CALAHANH@michigan.gov](mailto:CALAHANH@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Cc:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** RE: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint

Hi Steve:

You would only receive this email if you were identified as a custodian who likely has information that includes certain search terms. I am not disputing your involvement; however, I would need Mr. Brownlee or his delegate to inform me that you are in fact a custodian of information that contains certain search terms. Jean

Jean M. Ingersoll, JD  
Michigan Department of Technology, Management & Budget  
Lewis Cass Building

320 South Walnut St.  
PO Box 30026  
Lansing, MI 48909  
517-241-8844 (O)  
517-282-2474 (C)

<< OLE Object: Picture (Device Independent Bitmap) >>

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**From:** Rigg, Steve (DTMB)  
**Sent:** Thursday, February 18, 2016 8:32 AM  
**To:** Ingersoll, Jean (DTMB)  
**Cc:** Cook, Rebecca (DTMB)  
**Subject:** FW: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint  
**Importance:** High

Hi Jean,

I have not been getting any of these emails. Could you please add me to this email list? I manage the Home Depot and Grainger contracts and I have been highly involved in helping coordinate the procurement of the water filters, bottled water, and plumbing materials for Flint. I just want to make sure I'm not missing anything. Thanks.

*Steve Rigg*

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

<< OLE Object: Picture (Device Independent Bitmap) >>

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, February 18, 2016 8:14 AM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** FW: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint  
**Importance:** High

Are you getting these emails?

---

**From:** DTMB-Directors-Office  
**Sent:** Thursday, February 18, 2016 8:13 AM  
**To:** Behen, David (DTMB) <[Behend@michigan.gov](mailto:Behend@michigan.gov)>; Donnan, Chanda (DTMB) <[DonnanC@michigan.gov](mailto:DonnanC@michigan.gov)>; Buhs, Caleb (DTMB) <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>; Davenport, Rodney (DTMB) <[DavenportR1@michigan.gov](mailto:DavenportR1@michigan.gov)>; Gelisse, Ashley (DTMB) <[GelisseA@michigan.gov](mailto:GelisseA@michigan.gov)>; Gilliland, Michael (DTMB) <[gillilandm@michigan.gov](mailto:gillilandm@michigan.gov)>; Spaniolo, Natalie (DTMB) <[spaniolon@michigan.gov](mailto:spaniolon@michigan.gov)>; Wilke, Lacey (DTMB) <[Wilkel@michigan.gov](mailto:Wilkel@michigan.gov)>; Stansfield, Marsha (DTMB) <[StansfieldM@michigan.gov](mailto:StansfieldM@michigan.gov)>; Ballard, Denise (DTMB) <[ballardd@michigan.gov](mailto:ballardd@michigan.gov)>; Hampton, Trisha (DTMB) <[HamptonT@michigan.gov](mailto:HamptonT@michigan.gov)>; DeCamp, Greg (DTMB) <[DeCampG1@michigan.gov](mailto:DeCampG1@michigan.gov)>; Gibson, Jennifer (DTMB)

<GibsonJ@michigan.gov>; Hengesbach, Dane (DTMB) <hengsbachd@michigan.gov>; Ingersoll, Jean (DTMB) <IngersollJ@michigan.gov>; Jeffery, Phillip (DTMB) <JefferyP@michigan.gov>; Phillip, Brandon (DTMB) <phillipb@michigan.gov>; Kopacsi, Christian (DTMB) <KopacsiC@michigan.gov>; Doll, Jeanette (DTMB) <dollj@michigan.gov>; McKee, Ryan (DTMB) <mckeer1@michigan.gov>; Pratt, Jeff (DTMB) <prattj@michigan.gov>; Knapp, Kathy (DTMB) <knappk1@michigan.gov>; Bidelman, Craig (DTMB) <BidelmanC@michigan.gov>; Bussema, Terry (DTMB) <Bussemat@michigan.gov>; Rokely, Rick (DTMB) <RokelyR1@michigan.gov>; Tefft, Niki (DTMB) <tefftn@michigan.gov>; Schlegel, Nicolle (DTMB) <SchlegelN@michigan.gov>; Parker, Alexandra (DTMB) <ParkerA8@michigan.gov>; Keilen, Elizabeth (DTMB) <KeilenE1@michigan.gov>; McPherson, Victoria (DTMB) <McPhersonV@michigan.gov>; Christensen, Chris (DTMB) <christensenc4@michigan.gov>; Lawson, Michelle (DTMB) <LawsonM1@michigan.gov>; Nevai, Tom (DTMB) <NevaiT@michigan.gov>; Evans, Carter (DTMB) <EvansC8@michigan.gov>; Fick, James (DTMB) <FickJ@michigan.gov>; McKee, Robert (DTMB) <McKeeR2@michigan.gov>; Perry, Blane (DTMB) <PerryB4@michigan.gov>; Riddering, Eric (DTMB) <RidderingE@michigan.gov>; Rodgers, Anthony (DTMB) <RodgersA1@michigan.gov>; Trial, Larry (DTMB) <TrialL@michigan.gov>; Thompson, Kyleigh (DTMB) <ThompsonK18@michigan.gov>; Glomski, Tom (DTMB) <glomskit@michigan.gov>; Seger, Seth (DTMB) <SegerS@michigan.gov>; Lee, Timothy (DTMB) <LeeT9@michigan.gov>; Sikkema, Tyler (DTMB) <SikkemaT@michigan.gov>; Manning, Kelly (DTMB) <ManningK4@michigan.gov>; McFarlane, James (DTMB) <mcfarlanej@michigan.gov>; Galeazzi, Tiziana (DTMB) <galeazzit@michigan.gov>; Das, Rajiv (DTMB) <DasR@michigan.gov>; Pung, Linda (DTMB) <PUNG12@michigan.gov>; Hogan, James (DTMB) <hoganj@michigan.gov>; Westfall, Laurie (DTMB) <WestfallL@michigan.gov>; Palmer, Jason (DTMB) <PalmerJ2@michigan.gov>; Stibitz, Brom (DTMB) <StibitzB@michigan.gov>; Trakul, Pamela (DTMB) <TrakulP@michigan.gov>; Swanson, Eric (DTMB) <swansone@michigan.gov>; Blastic, Laura (DTMB) <blastid@michigan.gov>; Furseth, Kristen (DTMB) <Fursethk@michigan.gov>; Brancheau, Laura (DTMB) <BrancheauL@michigan.gov>; Sebok, Yvonne (DTMB) <SebokY@michigan.gov>; Stankiewicz, Richard (DTMB) <StankiewiczR@michigan.gov>; Vera, Jason (DTMB) <VeraJ@michigan.gov>; Jehnsen, Jeremy W (DTMB) <JehnsenJ@michigan.gov>; Jodway, Kenneth (DTMB) <jodwayK@michigan.gov>; Newman, Jeremy (DTMB) <NewmanJ2@michigan.gov>; Vijayaveeraraghavan, Anupkumar (DTMB) <VijayaveeraraghavanA@michigan.gov>; Harmon, Paul (DTMB) <harmonp@michigan.gov>; Root, Everett (DTMB) <RootE@michigan.gov>; Pauley, Suzanne (DTMB) <PauleyS@michigan.gov>; Thompson, John (DTMB) <thompsonj@michigan.gov>; Nolan, Anne (DTMB) <nolana@michigan.gov>; Peterson, Rick (DTMB) <petersonr@michigan.gov>; Stiffler, Michelle (DTMB) <StifflerM@michigan.gov>; Patke, Sunit (DTMB) <patkes1@michigan.gov>; Estill, John (DTMB) <EstillJ@michigan.gov>; Seckelman, Joe (DTMB) <SeckelmanJ@michigan.gov>; Martin, Ellen (DTMB) <MartinE@michigan.gov>; Aprill, Brian (DTMB) <aprillb@michigan.gov>; Ross, Josh (DTMB) <rossj@michigan.gov>; Locke, Joel (DTMB) <lockej@michigan.gov>; Cross, Steven (DTMB) <crosss3@michigan.gov>; Clark, John (DTMB) <clarkj@michigan.gov>; Olkowski, Tony (DTMB) <OlkowskiT@michigan.gov>; Noldy, Scott (DTMB) <NoldyS@michigan.gov>; Baer, John (DTMB) <BAERJ@michigan.gov>; Dickinson, Holly (DTMB) <DickinsonH1@michigan.gov>; Post, Corey (DTMB) <postc1@michigan.gov>; Cantin, David (DTMB) <CantinD@michigan.gov>; Brun, Jeremy (DTMB) <BrunJ@michigan.gov>; Hartsuff, Lisa (DTMB) <HartsuffL@michigan.gov>; Kosloski, Joni (DTMB) <kosloskij2@michigan.gov>; Jordan, Gerald (DTMB) <jordang@michigan.gov>; Sweeney, Matthew (DTMB) <SweeneyM1@michigan.gov>; Turnquist, Michael (DTMB) <TurnquistM@michigan.gov>; Morgan, Dan (DTMB) <morgand@michigan.gov>; Droste, Kerri (DTMB) <drostek@michigan.gov>; Paasch, Keith (DTMB) <paaschK@michigan.gov>; Scates, Larry (DTMB) <scatesl@michigan.gov>; Noonan, Michael (DTMB) <noonanm@michigan.gov>; Walts, Brian (DTMB) <WaltsB@michigan.gov>; Martin, Ric (DTMB) <MartinR3@michigan.gov>; Burns, Robert (DTMB) <BurnsR@michigan.gov>; Doxie, William (DTMB) <DoxieW@michigan.gov>; Clark, Jim (DTMB) <clarkj1@michigan.gov>; Bailey, Maureen (DTMB) <baileym1@michigan.gov>; Bos, Troy (DTMB) <post@michigan.gov>; Phillippo, Jamie (DTMB) <PhillippoJ@michigan.gov>; Spitzley, Troy (DTMB) <SpitzleyT@michigan.gov>; Darby, Marchan (DTMB) <DarbyM@michigan.gov>; Hawes, Keith (DTMB) <HawesK@michigan.gov>; Wright, Seth (DTMB) <WrightS17@michigan.gov>; Rambo, Carolyn (DTMB) <RamboC1@michigan.gov>; Millimaki, Shelly (DTMB) <MillimakiS@michigan.gov>; Nelson, Christopher (DTMB) <NelsonC12@michigan.gov>; Murphy, Chris (DTMB) <murphyc2@michigan.gov>; Clark, Stephanie (DTMB) <clarks18@michigan.gov>; Cischke, Roy (DTMB) <cischker@michigan.gov>; Hofmeister, David (DTMB) <HofmeisterD@michigan.gov>; Reynolds, Vince (DTMB) <reynoldsv@michigan.gov>; VanCoevering, Joyce (DTMB) <VanCoeveringJ1@michigan.gov>; Ragla, Beth (DTMB) <raglab1@michigan.gov>; Shaw, Gary (DTMB) <shawg@michigan.gov>; Wonn, Michael (DTMB)



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**Cc:** Stanaway, Deb (DTMB) <StanawayD@michigan.gov>; Huhn, Jacqueline (DTMB) <huhnj@michigan.gov>; McQuaid, John (DTMB) <mcquaidj@michigan.gov>; Reasner, Richard (DTMB) <ReasnerR@michigan.gov>; Rakowski, Rock (DTMB) <RakowskiJ@michigan.gov>; Gonzalez, Tonyia (DTMB) <GonzalezT1@michigan.gov>; Doerr, Stephen (DTMB) <DoerrS1@michigan.gov>; Isaacs, Jan (DTMB) <isaacsi@michigan.gov>

**Subject:** RE: Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint

**Importance:** High

**Please note the attached document has been updated. Please discard the previous version. A paper copy will be provided to you at the meeting.**

<< File: All DTMB Custodians of Correspondence Related to Flint - UPDATED.pdf >>

-----Original Appointment-----

**From:** Longanbach, Janelle (DTMB) **On Behalf Of** DTMB-Directors-Office

**Sent:** Wednesday, February 17, 2016 1:21 PM

**Subject:** Mandatory Meeting - DTMB Custodians of Correspondence Related to Flint

**When:** Thursday, February 18, 2016 2:00 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:** Ottawa Building - Upper Level – Conference Room 4 OR Call-in: 866-390-1828 access code: 1842654

*Please note this meeting can be attended in person or via conference call-in. Location and Dial in information are provided below.*

<< File: All DTMB Custodians of Correspondence Related to Flint.pdf >>

**\*This attachment was updated 2/18/16**

\*See agenda below

**Requested By:**

DTMB Executive Staff

**Location:**

Ottawa Building  
Upper Level – Conference Room 4  
611 W. Ottawa Street  
Lansing, MI 48933

Call-in: 866-390-1828

Access code: 1842654

**Security:**

Please have your State Employee ID showing at all times.

**Parking:**

Metered parking is available along Ottawa and Pine street.

**Briefing:**

In recent months, the State of Michigan has received a number of requests to produce documents related to the water emergency in Flint. You have been identified as a potential custodian of relevant/responsive correspondence and/or documents related to these requests. As a custodian, you are required to produce, by a certain date, any documents containing certain search terms. In this meeting we will review instructions for the process of identifying, compiling, scanning, and copying the necessary information.

**Agenda**

- 1) Kickoff – Brom Stibitz, Chief Deputy Director
- 2) Why you are here – Jean Ingersoll, Interim Chief of Staff
- 3) What you need to do (February 22, 2016 deadline) – Jean
- 4) What will be done for you – Jean
- 5) What's next – Jean
- 6) Public Information Reminder – Caleb Buhs, Public Information Officer
- 7) Questions and Answers - Group

**SOM Meeting Contact:**

Janelle Longanbach

[LonganbachJ@michigan.gov](mailto:LonganbachJ@michigan.gov)

Office: 517-373-4210

**Participants:**

David Behen  
Chanda Donnan  
Caleb Buhs  
Rodney Davenport  
Ashley Gelisse  
Michael Gilliland  
Natalie Spaniolo  
Lacy Wilke  
Marsha Stansfield  
Denice Ballard  
Trisha Hampton

Greg DeCamp  
Jennifer Gibson  
Dane Hengesbach  
Jean Ingersoll  
Phillip Jeffery  
Brandon Philip  
Christian Kopacsi  
Jeanette Doll  
Ryan McKee  
Jeff Pratt  
Kathy Knapp  
Craig Bidelman  
Terry Bussema  
Rick Rokely  
Niki Tefft  
Nicolle Schlegel  
Alexandrea Parker  
Elizabeth Keilen  
Vicki McPherson  
Chris Christensen  
Michelle Lawson  
Tom Nevai  
Carter Evans  
James Fick  
Robert McKee  
Blane Perry  
Eric Riddering  
Anthony Rodgers  
Larry Trial  
Kyleigh Thompson  
Tom Glomski  
Seth Seger  
Tim Lee  
Tyler Sikkema  
Kelly Manning  
James McFarlane  
Tiziana Galeazzi  
Rajiv Das  
Linda Pung  
James Hogan  
Laurie Westfall  
Jason Palmer  
Brom Stibitz  
Pam Trakul  
Eric Swanson  
Laura Blastic  
Kristen Furseth  
Laura Brancheau  
Yvonne Sebok  
Richard Stankiewicz  
Jason Vera  
Jeremy Jehnsen

Ken Jodway  
Jeremy Newman  
Anup Vijay  
Paul Harmon  
Everett Root  
Suzanne Pauley  
John Thompson  
Anne Nolan  
Rick Peterson  
Michelle Stiffler  
Sunit Patke  
James Foley  
John Estill  
Joe Seckelman  
Ellen Martin  
Brian Aprill  
Josh Ross  
Joel Locke  
Steven Cross  
John Clark  
Tony Olkowski  
Scott Noldy  
John Baer  
Holly Dickinson  
Corey Post  
David Cantin  
Jeremy Brun  
Lisa Hartsuff  
Joni Kosloski  
Gerald Jordon  
Matthew Sweeney  
Michael Turnquist  
Dan Morgan  
Kerri Droste  
Keith Paasch  
Larry Scates  
Mike Noonan  
Brian Walts  
Ric Martin  
Robert Burns  
William Doxie  
Jim Clark  
Maureen Bailey  
Troy Bos  
Jamie Phillippo  
Troy Spitzley  
Marchan Darby  
Keith Hawes  
Seth Wright  
Carrie Rambo  
Shelly Millimaki  
Chris Nelson

Chris Murphy  
Stephanie Clark  
Roy Cischke  
David Hofmeister  
Vince Reynolds  
Joyce Van Coevering  
Beth Ragla  
Gary Shaw  
Mike Wonn  
Kristi Thompson  
Thomas Goodine  
Mike Armstrong  
Jim Doyle  
Kristen Hampton  
Mark Miller  
Tom Cooley  
Rex Waltersdorf  
Jerry Monroe  
Kristin Bergan  
William Banks  
Mike Dyson  
Dan Stiles  
Dan Chipman  
Steve Hodgman  
Todd Martin  
Jessie Weston  
Scott Fitton  
Brice Sample  
Kerrie Vanden Bosch  
Jeff Wellman  
Jeff Brownlee  
Sharon Maynard  
Heather Calahan  
Rebecca Cook  
Genevieve Hayes  
Jennifer Riehle  
Tom Falik  
Bill Pemble  
Melissa Sambiagio  
Sue Ciecwa  
Lymon Hunter  
Yvon Dufour  
Will Camp  
David Hatch  
Shelby Troub  
Stephanie Epps  
<< File: All DTMB Custodians of Correspondence Related to Flint - UPDATED.pdf >>

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**From:** Weise, Kevin (MSP)  
**Sent:** Thursday, February 18, 2016 12:57 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** FW: FW: Flint water problems.  
**Attachments:** IMG\_0001.JPG; IMG\_0009.JPG; ATT66402.eml; ReportViewer.pdf; water testing2-6.pdf

Another filter idea.

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

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From: Baird, Richard (GOV)  
Sent: Tuesday, February 16, 2016 11:02 AM  
To: Weise, Kevin (MSP); Brownlee, Jeff (DTMB)  
Subject: Fwd: FW: Flint water problems.

Sent from my Verizon 4G LTE Droid

----- Forwarded message -----

From: "Scott, Allison (GOV)" <scotta12@michigan.gov>  
Date: Feb 16, 2016 9:46 AM  
Subject: FW: Flint water problems.  
To: "Weise, Kevin (MSP)" <WeiseK@michigan.gov>  
Cc: "Baird, Richard (GOV)" <bairdr@michigan.gov>

For your review

From: Jackie Goforth (US - Assurance) [mailto:jacalyn.s.goforth@pwc.com]  
Sent: Tuesday, February 16, 2016 9:33 AM  
To: Snyder, Rick (GOV) <Rick.Snyder@michigan.gov>  
Cc: Richard L. Baird <rbaird003@hotmail.com>; Scott, Allison (GOV) <scotta12@michigan.gov>  
Subject: Fwd: Flint water problems.

Rick,

First, let me say that my thoughts and prayers have been with you and your team. I can't even imagine the heartache you are experiencing over this situation.

You know how friends are, we can't help but try to see what ideas we can come up with to help provide some type of solution. One my High School friends thinks she and her family have one.

It is a Michigan based company that has a water filtration solution. Below is the information he shared with Debbie Stabenow, you may have already seen this, but in case you haven't I thought I would pass it along.

I can't think of a person better suited to lead us all through this situation. Thank you for your balanced and thoughtful leadership.

Kindest Regards,

Jackie

----- Forwarded message -----

From: Marybeth Novitsky <mbmills989@gmail.com<mailto:mbmills989@gmail.com>>

Date: Mon, Feb 15, 2016 at 7:54 PM

Subject: Fwd: Flint water problems.

To: jacalyn.s.goforth@us.pwc.com<mailto:jacalyn.s.goforth@us.pwc.com>,  
jacalyn.s.goforth@pwc.com<mailto:jacalyn.s.goforth@pwc.com>

Cc: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Jackie -

Here is the letter that Joe sent to Senator Stabenow. Since then, the Merlin was installed at St Mary's church to supply water for the homeless, in their shelter. The next Merlin will be installed at St Luke's Women's and Children's Center. Thank you for your efforts.

We appreciate it.

Marybeth

----- Forwarded message -----

From: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Date: Thu, Jan 28, 2016 at 12:45 PM

Subject: Flint water problems.

To: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Good Morning Senator.

Please take the time to read this—WE CAN HELP--

This is Joe Novitsky, Architect and inventor of a water purifier that can eliminate or minimize the bottled water eco disaster pending in Flint.

We have been studying the problem, testing the water, and watched you last night on Rachael's show.

YOU DID GREAT! You are the ONLY one that understands the problem right now—even Rachael is not as clear as you on the solution.

Yes, we need filtered water and no one is ever going to dig up the entire City—the pipes will re-coat, and the new supply from Lake Huron will be complete within 18 months and the City system will again be healthy, but what to do until then?

We have a plan.

Of the 100K residents affected we estimate 25,000 households, and 14,000 businesses, based on information taken from the internet.

Each household of 4 needs 5 gallons per day for drinking and cooking.

We can service this need with approximately 300 units, distributed across the City with the HELP OF the COMMUNITY, and that is where you come in. These Places distributing water must be relieved from paying for the water being distributed. If that can be accomplished, we can solve this 18 month problem for about \$2.5M—FAR LESS than any other proposed effort we have heard about.

We would recommend filtered shower heads, ( about \$50 each), maybe for the clothes washer as well, and one Merlin Eco Solutions unit for about 80-100 homes ( one unit / station per every three blocks), at \$2,000 each, installed by currently unemployed technicians and Vets- that will be paid to do this. We could distribute in 5 gallon camping containers, and each resident would have to lug their daily water no more than a block and a half. It's a pain – but what other REAL choice do we have? The filters they are distributing now are good for 100 gallons, untested, and again an eco-disaster in and of themselves. Our lead filters do not have to be changed for up to 10,000 each and the first primary filter is ceramic and can be cleaned re-used for as many as half a million gallons each!



This same equivalent in bottled water equals 1,250,000 bottles spent PER DAY!! The raw cost, ( \$1/bottle) and associated cost of the current campaign are certainly not sustainable nor acceptable. Have you ever tried to shower with a bottle of water?

Please see the Flint water test results attached. A photo of one that was being installed in a Flint shelter is also attached. The two samples in the other photos are from Michigan Works!, just down the street from your Office, before and after purifying.

Our website is: [www.merlinecosolutions.com](http://www.merlinecosolutions.com)<<http://www.merlinecosolutions.com>>

We are currently working on getting one or two installed at St. Mary's Church currently servicing the bottle distribution, homeless shelter and Michael's Soup Kitchen. This will make an immediate contribution and difference. We did this with funds from GoFundMe site and contributions! (see attached). By the time we get something going with you, you will have their support as we took their water samples yesterday and they are being tested today. Deacon Paul is our contact there. We are currently attempting to help Dr. Mona as well---

FYI—Stanford University Medical Staff, Dr. Weiss, has endorsed this unit and science and Michigan State Chemistry and Biology Labs and Students will be monitoring the units we install to safeguard the residents and process. National Testing Labs have been the Lab we are using to date., (see attached).

I can be reached and will come demonstrate and show off our unit and results whenever you have time – if you are inclined to help us.

Thanks for the time--- and your awareness--- and focus on the solution—

Sincerely,

Joseph S. Novitsky, AIA

Merlin Eco Solutions

O (248) 433-2030

M (586) 995-2170

[Joe@JSN-AIA.com](mailto:Joe@JSN-AIA.com)<<mailto:Joe@JSN-AIA.com>>

Skype: JoeN-AIA

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[<http://static.avast.com/emails/avast-mail-stamp.png>]<http://www.avast.com/>>

This email has been checked for viruses by Avast antivirus software.  
[www.avast.com](http://www.avast.com)<<http://www.avast.com/>>

----- Forwarded message -----

From: Charles Chervenka <[cjchervenka@gmail.com](mailto:cjchervenka@gmail.com)<<mailto:cjchervenka@gmail.com>>>

To: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)<<mailto:joe@jsn-aia.com>>>

Cc:

Date: Tue, 12 Jan 2016 20:36:17 -0500

Subject: Fwd: Lynn posted an update on "Water Purifier for Mission of Hope"

Here's the site for funding. Just click on it.

To get the test data google Merlin Eco Solutions and then click on "test results" at the top of the page.

CJC

----- Forwarded message -----

From: Lynn via GoFundMe <[messages@gofundme.com](mailto:messages@gofundme.com)<<mailto:messages@gofundme.com>>>

Date: Tue, Jan 12, 2016 at 9:56 AM

Subject: Lynn posted an update on "Water Purifier for Mission of Hope"

To: [cjchervenka@gmail.com](mailto:cjchervenka@gmail.com)<<mailto:cjchervenka@gmail.com>>

Hi Charles A new update has been posted to Water Purifier for Mission of Hope Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't nee...

[<https://febc376daf6131a28181-3721cc30b0d63259b2211381d1431a50.ssl.cf1.rackcdn.com/logo-email-v5@2x.png>]

Charles, I posted an update on

Water Purifier for Mission of Hope

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>

Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't nee...

[View Campaign](#)

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dcta\\_button%26utm\\_campaign%3Dupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dcta_button%26utm_campaign%3Dupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>

[[https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293\\_1452465809.8834.png](https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293_1452465809.8834.png)][http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>





**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166

(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349706****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw, Tap Water**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	1.20*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	34.0	1	1/19/2016 10:30	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	5.000*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	9.100*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	0.850*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	10.00	1	1/19/2016 10:30	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.280*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 10:30	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.018	1	1/19/2016 10:30	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	2.6	1	1/19/2016 10:30	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016

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# National Testing Laboratories, Ltd

556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585

## ANALYTICAL REPORTS

SAMPLE CODE: 349706

1/22/2016

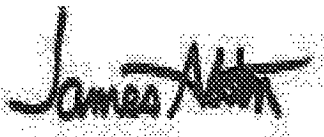
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	15	1	1/19/2016 10:30	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.520	1	1/19/2016 10:30	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349707****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw. Filtered through Purifier  
**Source City:** Flint  
**Source State:** MI

**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	ND	1	1/19/2016 10:30		1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30		1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	0.002	1	1/19/2016 10:30		1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	2.2	1	1/19/2016 10:30		1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30		1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	ND	1	1/19/2016 10:30		1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	7.10	1	1/19/2016 10:30		1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	1	1/19/2016 10:30		1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.006	1	1/19/2016 10:30		1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	ND	1	1/19/2016 10:30		1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016

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# National Testing Laboratories, Ltd

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(440) 449-2525, Fax: (440) 449-8585

## ANALYTICAL REPORTS

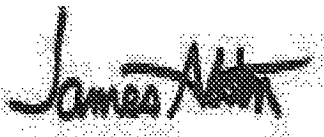
SAMPLE CODE: 349707

1/22/2016

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	32	1	1/19/2016 10:30		1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**National Testing Laboratories, Ltd**

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(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349708****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** Flint River Water (Flint River - Downtown)**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	0.12	1	1/19/2016 11:00	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	79.0	1	1/19/2016 11:00	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	0.002	1	1/19/2016 11:00	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	0.280	1	1/19/2016 11:00	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	28.00	1	1/19/2016 11:00	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.032	1	1/19/2016 11:00	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 11:00	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	3.3	1	1/19/2016 11:00	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016

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## ANALYTICAL REPORTS

SAMPLE CODE: 349708

1/22/2016

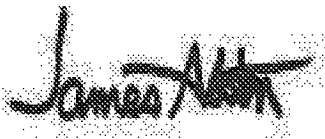
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	34	1	1/19/2016 11:00	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.007	1	1/19/2016 11:00	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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ANALYTICAL REPORTS

SAMPLE CODE: 350014

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #1  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	520*	A6 1	1/27/2016 13:53		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	66*	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350015  
2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #2 Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	2	A6	1	1/27/2016 13:53	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350016

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: Flint River (Raw) #3  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	390	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

- A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.
- Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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**ANALYTICAL REPORTS**

**SAMPLE CODE: 350017**

**2/4/2016**

**Customer:** JSN Architecture  
 Joseph Novitsky  
 1755 Royal Ave  
 Berkley, MI 48072

**Source:** Flint River (Purified) #4  
**Source City:** Flint  
**Source State:** MI

**Date/Time Received:** 1/28/2016 08:26  
**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND"** This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA"** Not Analyzed
- "Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Microbiologicals</b>										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

- A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.
- Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350018

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #5  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1200*	A6 1	1/27/2016 15:08		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350019

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #6 - Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	<1	1	1/27/2016 15:10		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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---

**From:** Weise, Kevin (MSP)  
**Sent:** Thursday, February 18, 2016 1:18 PM  
**To:** Brownlee, Jeff (DTMB)  
**Cc:** Baird, Richard (GOV)  
**Subject:** FW: Mission Flint: Procurement Model  
**Attachments:** image001.png; 20160210 Flint Procurement Model.pdf

Jeff: What is the status of your team assembly? Do you need some help moving forward with that? Also, have you been able to assemble a list of Flint area partners/vendors? This is going to become critical when we start advertising for excavation and labor.

kevin

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Baird, Richard (GOV)  
Sent: Wednesday, February 10, 2016 10:45 PM  
To: Weise, Kevin (MSP)  
Subject: Fwd: Mission Flint: Procurement Model

This looks good but where is the piece dealing with contracting Flint and Flint area partners? I want a short list of preferred Flint vendors asap.

Sent from my Verizon Wireless 4G LTE DROID

----- Forwarded message -----

From: "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Date: Feb 10, 2016 10:09 PM  
Subject: Mission Flint: Procurement Model  
To: "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>, "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>  
Cc:

Kevin & Rich,

As I know I'm going to have some selling to do to get team members, I've put together the attached draft of a straw-man procurement model based on our conversation today. Please have a look, and I welcome any feedback. Kevin, I have a few questions for you now that I've had a few hours to reflect on our conversation. Please let me know if you have any availability on Thurs or Fri.

Have a good evening.

Thanks,

Jeff

Jeff Brownlee

Chief Procurement Officer

State of Michigan, DTMB

517.284.7012

[brownleej@michigan.gov](mailto:brownleej@michigan.gov)

[cid:image001.png@01D1644F.ABB40230]

# Mission Flint: Procurement Model

February 10, 2016

**DRAFT**

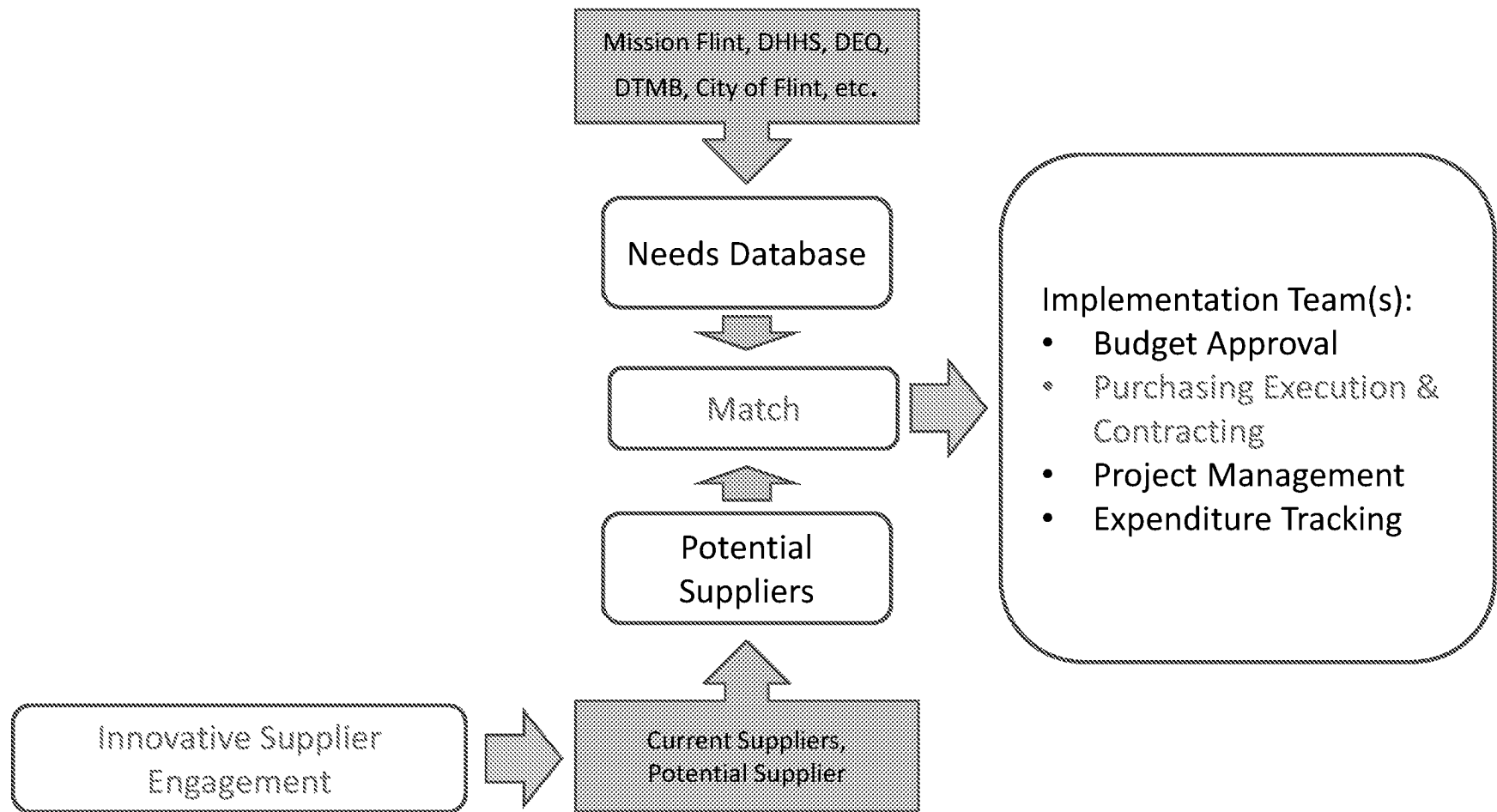
# Mission Flint Procurement Overview

## Purpose.

The purpose of the Mission Flint Joint Procurement team—a multi-agency collaborative—is to provide attentive, efficient, risk-based purchasing support to the Mission Flint effort by:

1. Facilitating the alignment/match of suppliers with needs identified by the Mission Flint team
2. Owning the contracting process for all Mission Flint purchasing;
3. Facilitating transactions, supported by agency purchasing teams
4. Taking a lead role in developing and executing innovative [potential] supplier engagement

# Mission Flint Procurement Overview



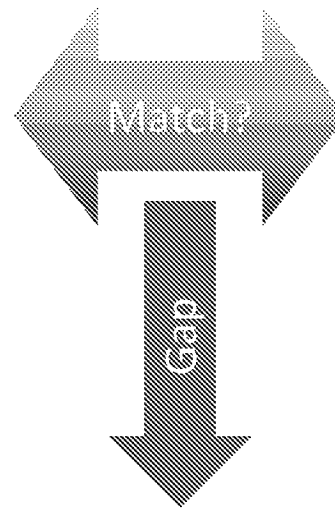
# Needs/Supplier Alignment

## Needs Database

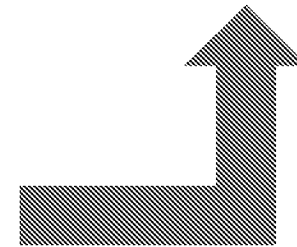
- Content determined and owned by Mission Flint core team
- Potential Inputs include, but not limited to, DHHS, DEQ, City of Flint, DTMB
- Content fed to Needs Database, maintained by Flint Joint Procurement team

## Potential Suppliers Database

- Owned and Maintained by Flint Joint Procurement team
  - Current State Suppliers
  - Sellers
  - Pro Bono Partners
  - Unsolicited “Baiters”
  - Innovators



Innovative Supplier  
Engagement





# Purchasing Execution & Contracting

## *Urgent, risk-based, efficient and responsible transacting*

- Lead the contracting efforts for Mission Flint, engaging appropriate business owners, SMEs, and legal experts
- Supported by applicable agency purchasing teams: purchase orders are to be issued by the purchasing teams within the financially responsible agency.
- Supply chain support from DTMB Central Procurement
- Supported by the Attorney General's Office as deemed necessary on a case by case basis
- All new contracts must receive advance signoff from the State Budget Director, Chief Procurement Officer, and Mission Flint Chief of Staff, or their designees
- State Administrative Board procedures and thresholds apply to all purchases

# Innovative Supplier Engagement

Unique and unprecedented situations require fresh and innovative approaches to problem solving. In this case, supplier engagement is critical:

- Identifying and soliciting suppliers to solve unique problems, both short and long term
- Identifying and soliciting citizen-focused service partners (pro bono, or similar)
- Public/private problem solving

# Action Steps

## Immediate Next Steps:

- Brownlee/Weise connect regarding timing and communication strategy: need to be able to articulate the commitments needed from agencies and the timing of inputs—budget and identified needs
- Draft memo to applicable leaders to secure high-performer team members:
  - DHHS
  - DEQ
  - DTMB Central Procurement
  - City of Flint
  - Contractors – is there a budget for this?
- Secure AG support
- Obtain legal definition “Emergency purchasing”

---

**From:** Richard Brown <rbrown@vogelandbrown.com>  
**Sent:** Friday, February 19, 2016 8:37 AM  
**To:** Weise, Kevin (MSP);Brownlee, Jeff (DTMB)  
**Cc:** DCawthorne@kelley-cawthorne.com  
**Subject:** Re: Flint

Kevin,

Thank you for your reply.

Jeff,

We eagerly anticipate interfacing with your engineers and conducting our proposed Demonstration of our patented and internationally proclaimed technology which uses electrolysis to remove all metals, minerals and microbial's.

In addition, there exists an internationally applied and approved technology that has cleaned and lined leaded pipes with an epoxy barrier coating in a non-destructive and minimally invasive process, bringing drinking water well within international standards.

Prior to submission of our proposal my engineers would like access to: 1) latest Flint Lab Water Report; 2) Average Daily Water Flow in gallons.

Thank you,

Best regards,

Richard Brown  
President  
office 703-444-7978

aka Hot Dog  
Sent from my iPhone

Best regards,

Richard Brown  
President  
Vogel - Brown, LLC  
office 703-444-7978

aka Hot Dog  
Sent from my iPhone

Best regards,

Richard Brown  
President  
Vogel - Brown, LLC  
office 703-444-7978

aka Hot Dog  
Sent from my iPhone

Best regards,

Richard Brown  
President  
Vogel - Brown, LLC  
office 703-444-7978

aka Hot Dog  
Sent from my iPhone

> On Feb 16, 2016, at 10:03, Weise, Kevin (MSP) <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)> wrote:

>

> Hello Mr. Cawthorne and Mr. Brown: I'm Rich Baird's chief of staff for the Mission Flint Team. He asked me to respond to your inquiry. Since you last spoke, we have set up a team at DTMB to help coordinate all the offers of assistance that we have received. There have been well over a thousand so far and they keep coming in every day.

>

> Mr. Jeff Brownlee is heading up the effort at DTMB and I have cc'd him here. I recommend that you send him the details on what your organization is looking to provide, along with any relevant informational items. We haven't done any procurement yet as the relief effort is still in the evaluation stage as to who needs what in the neighborhoods and what solutions are best implemented.

>

> Thanks again for you interest.

>

> Kevin Weise

> Chief of Staff

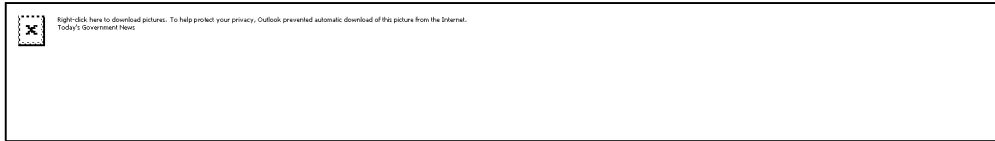
> Mission Flint

> 517-420-2652 (m)

---

**From:** GOVERNING Daily <newsletters@governing.com>  
**Sent:** Wednesday, January 06, 2016 8:58 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Public Health Departments Have Lower Standards Than Zoos

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FEATURED STORY FOR JANUARY 6, 2016

## Public Health Departments Have Lower Standards Than Zoos

Unlike zoos, public health departments don't have to meet national accreditation standards. One state is leading the charge to change that.

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#### **Iowa's Perennial Power Player**

Republicans have the governorship and the state House in Iowa, but Democrats have Mike Gronstal, who adheres to the old-fashioned sense that voters elect

politicians to work on policy before retreating to their respective partisan corners.

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### **How States' Dependence on Corporate Taxes Has Declined**

Most increased their reliance more on income taxes from people instead of corporations in the past few decades. View data for every state.

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In meeting a new federal initiative's ambitious goals for reducing carbon emissions, states should focus on never emitting them in the first place.

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- **State of Emergency Declared Over Contaminated Water in Flint, Mich.**

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- **Baltimore to Demolish Thousands of Vacant Buildings**

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#### POLITICS

- **On Syrian Refugees, Georgia Governor Ends His Opposition**

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#### PUBLIC SAFETY & JUSTICE

- **Obama's Gun Control Plan Relies on Enforcing Many Existing Laws**
- **Courts Blocks Pennsylvania's Ban on Felons Working in Health Care**

---

## NEWS IN NUMBERS

# 57

**The number of provisions enacted in 2015 to regulate abortion procedures and providers in more than a dozen states. Several are being challenged, most notably the Texas law that has shuttered dozens of clinics and will go before the U.S. Supreme Court.**

MORE

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## WHO SAID THAT?

**"When you have these police officers coming from other jurisdictions and they will not respect human life, then I said we should use rocks, bricks or bottles to try to get the message over: Stop endangering our children."**

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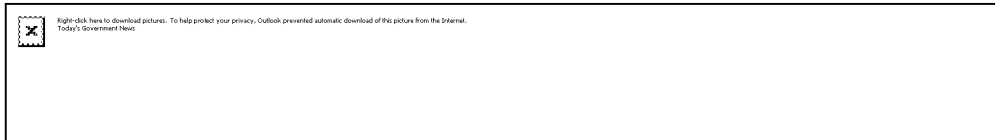




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**From:** GOVERNING Daily <newsletters@governing.com>  
**Sent:** Wednesday, January 13, 2016 9:07 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** In SOTU, Obama Provokes GOP Governors

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FEATURED STORY FOR JANUARY 13, 2016

# In Final SOTU, Obama Provokes One of His Biggest Barriers: GOP Governors

Republican governors have fought the president's vision for America since he first took office. But he continues to push even their most-resisted policies.

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### **Up to 1 Million People Could Lose Food Stamps in 2016**

Nearly half the states are reinstating work requirements that had been suspended since the Great Recession. But advocates say it's still too soon.

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### **Why Moving Isn't All Bad**

When lower-income Americans move, it's seen as a result of displacement instead of opportunity. This negative perception needs to change.

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Innovation platforms are springing up all over, engaging citizens in the process. Government's challenge is to manage and nurture them.

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- **In LGBT Rights Debate, Indiana Governor Urges Protection of Religious Freedom**
- **Kansas Governor Criticizes Obama in State Address**

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#### PUBLIC SAFETY & JUSTICE

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- **National Guard Activated in Flint Water Crisis**
- **Christie Announces Conversion of Prison Into Drug Treatment Center**

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#### EDUCATION

- **Washington Schools Superintendent Boycotts Governor's State Address**
- **As Teacher Sickouts Continue, Detroit Mayor Joins Calls**

**for State Aid**

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## **NEWS IN NUMBERS**

# **58%**

**Portion of people in the West who oppose giving state governments control over federal public lands, according to a recent poll. Meanwhile, armed protesters who want the feds to give up their control are in their second week of occupying a federal building in Oregon.**

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## **WHO SAID THAT?**

**"Since in my opinion the state's response to the ongoing crisis has been inadequate, I reached out to the White House today to request assistance."**

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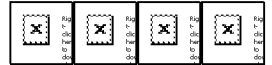


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**From:** DBusiness Daily News <noreply@dbusiness.com>  
**Sent:** Wednesday, January 20, 2016 1:16 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** DBusiness Daily News for Wednesday, January 20

If you're having trouble viewing this email, you may [see it online](#).

Share this:



## Wednesday, January 20, 2016

### Kettering University President Says Campus Water Safe from Lead Contamination

As Flint's water crisis garners more national attention, the president of Kettering University in Flint sent a letter to parents of the school's students and alumni explaining the origins of the lead contamination in the city's water supply and information about who's affected. The letter was made publicly available.

[READ MORE](#)



### Report: Detroit Lacks Private Sector Jobs, Low Labor Force Involvement

More than 60 percent of Detroit workers commute from outside the city for work, and within the city of Detroit, there are only enough jobs to employ about 37 percent of the population, according to a report released today by JPMorgan Chase and Co.

[READ MORE](#)



### National Architecture Firms to Pitch Future Plans for Detroit's East Riverfront

Seven teams comprised of design firms and development experts from across the U.S. will compete next week in Detroit to plan the future of the city's East Riverfront district at a public event.

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## **Report: CEOs Confidence Drops for Global Economic Growth in 2016**

Two-thirds of CEOs across the world see more threats facing their businesses today than three years ago, and about a quarter believe global growth will improve over the next year, a decline of 10 percent when compared to 2015, says a survey by PwC, an international firm that provides tax and advisory services. The firm operates a large practice in downtown Detroit.

[READ MORE](#)



## **Bosch Unveils Home Electric Vehicle Charging System**

An electric vehicle charging station for residential use and a geothermal heat pump system that uses the temperature of the earth to provide heating and hot water are two innovations Bosch, with its North American headquarters in Farmington Hills, is showcasing at the 2016 International Builders' Show being held this week in Las Vegas.

[READ MORE](#)

## **Chevy Introduces Special Edition Silverado with Camouflage Accents**

Chevrolet has unveiled a special edition 2016 Silverado that features exterior and interior camouflage graphics and black 20-inch all-terrain tires. The Silverado Realtree Edition goes on sale in the spring.

[READ MORE](#)

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## **Around the D**





## NEXTWork at Valentine Distilling

NEXTWork, a networking group for young Jewish professionals, held a networking event at Valentine Distilling Co. in Ferndale on Jan. 14. Guests enjoyed craft cocktails and appetizers.

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## OUT ON THE TOWN

*D*Business sponsors events and opportunities throughout metro Detroit. Check out the complete list of upcoming Out on the Town happenings and other events.

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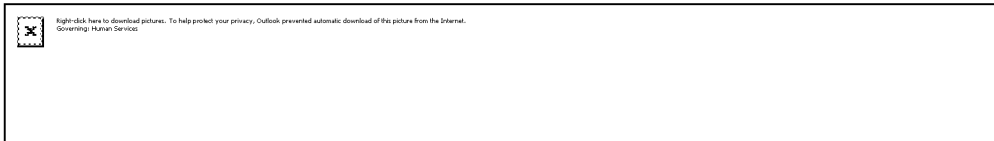
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**From:** GOVERNING <newsletters@governing.com>  
**Sent:** Friday, January 22, 2016 10:42 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** This Week in Politics: A New Newsletter

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**ATTN READERS:** This is our NEW politics newsletter. Each week, veteran reporter Alan Greenblatt will break down the most important election news and political dynamics impacting states and localities. To keep getting this FOR FREE and stay informed, [click here](#).



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## THIS WEEK IN POLITICS

# Flint Fallout, Corruption in Court and One State's New Supermajority

BY ALAN GREENBLATT

This was a busy week in politics -- but then, practically every week is. That's why *Governing* is offering this new weekly newsletter.

We won't cover the presidential campaign -- you can find plenty of that elsewhere. Instead, we aim to share with you the most interesting and important developments in state and local politics each week.

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## Flint Curbs Snyder's Future

Although it's premature to call him a lame duck, Michigan Gov. Rick Snyder's political capital has clearly been diminished by the Flint water crisis. During his State of the State address on Tuesday, Snyder offered lots of apologies: "You did not create this crisis;" "Government failed you;" and, "I'm sorry."

Since winning re-election in 2014, Snyder had been mentioned as a potential presidential or vice presidential pick on the Republican side. That kind of talk, however, has abruptly ended. "Even some Michigan Republicans concede that Snyder's national prospects are toast, at least in the short term," reports *Politico*.

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## HHS: Realizing Better Outcomes at a Cost Governments Can Afford

Read this Health and Human Services Special Report to find updates on where states are in this ACA era, learn about the challenges state and local governments continue to encounter and find out more about the government agencies developing successful policies with the potential to scale and be replicated across the country. **DOWNLOAD NOW**

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## MORE POLITICS NEWS & COMMENTARY

### A New Era for NGA's Relations With Congress?

The National Governors Association had seen its influence on federal legislation decline in the past decade. But things may be looking up.

### 2016's Top Legislative Issues to Watch

These are the biggest policies and problems that states will confront this year.

### Rocky Roads Ahead for Governors With Failed Presidential Bids

Trying and failing to take the White House has historically spelled trouble for governors' future political careers. In 2016, however, there may be one

exception.

## **Bernie Sanders Wants the Health Plan His Own State Rejected**

The presidential candidate wants America to create a single-payer health system -- something no U.S. state has done before.

## **Why Iowa's GOP Governor Wants Ted Cruz to Lose**

"I believe it would be a big mistake for Iowa to support him," said Gov. Terry Branstad.

## **Iowa's Perennial Power Player**

Republicans have the governorship and the state House in Iowa, but Democrats have Mike Gronstal, who adheres to the old-fashioned sense that voters elect politicians to work on policy before retreating to their respective partisan corners.

## **Milwaukee's Problems Leave Longtime Mayor Vulnerable**

Most of the city's problems, the mayor argues, are out of his control. Will voters blame and oust him anyways?

## **After 30 Days in Jail, N.M.'s Ex-Secretary of State Freed**

Dianna Duran prided herself on battling public corruption and voter fraud, even as she committed such crimes.

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**Sent:** Monday, January 18, 2016 10:32 PM  
**To:** Trakul, Pamela (DTMB);Stibitz, Brom (DTMB)  
**Subject:** Brownlee 1 on 1 Agenda 1/19/16

Agenda Items for 1/19/16:

- Office Supplies Subpoenas
- Flint Water support
- Transparency - written v. telephone quotes. Need support
- Pcard Threshold
- 

Jeff Brownlee  
Chief Procurement Officer  
State of Michigan, DTMB  
517.284.7012  
[brownleej@michigan.gov](mailto:brownleej@michigan.gov)

---

**To:** Roberts, John (DTMB);Stibitz, Brom (DTMB);Behen, David (DTMB);Duncan, Nancy (DTMB)  
**Cc:** Wellman, Jeff (DTMB);Minix, Connie (DTMB);Donnan, Chanda (DTMB)  
**Subject:** Flint/Emergency purchasing

Keeping this within DTMB for an initial discussion. I'd like to get 10 minutes with you all re: the emergency purchasing going on for Flint.

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Friday, January 29, 2016 4:47 PM  
**To:** Buhs, Caleb (DTMB);Christensen, Chris (DTMB)  
**Cc:** Kelenske, Chris (MSP)  
**Subject:** DTMB Procurement - Memo to Agency Purchasing Management - Key Emergency Response Considerations - Draft  
**Attachments:** DTMB Procurement - Memo to Agency Purchasing Management - Key Emergency Response Considerations - Draft.docx

Caleb and Chris,

Please vet the attached memo I would like to send to all procurement leadership (all agencies), ASAP. I have copied Captain Kelenske for comment as well. Captain, please take a look at this to ensure I have correctly captured the agreement we made last Friday with Col. Etue and John Roberts



STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

RICK SNYDER  
GOVERNOR

DAVID B. BEHEN  
DIRECTOR

January 29, 2016

**TO:** State of Michigan Procurement Leadership  
**FROM:** DTMB Procurement  
**SUBJECT:** Genesee County Water Emergency Response - Purchasing Guidance

Thank you to all who are working to support the State of Michigan's Genesee County water emergency response.

Given the complexity and variety of the needs of this emergency effort, the purchasing support required is complex as well. Purchasing protocols have some differences under this declared state of emergency, and meticulous tracking of expenditures is imperative.

The Michigan State Police (MSP) is the lead agency overseeing the situation and managing the State of Michigan Emergency Operations Center (SEOC). Flint related purchases must **first** be routed through the appropriate State Emergency Operations Center (SEOC) contact (see attached for an agency roster). This is required for all Flint related purchases without exception. The SEOC financial team is responsible for tracking all expenditures in connection with the emergency efforts. Failure to properly inform the SEOC financial team of any transaction may result in a forfeiture of any reimbursement anticipated by the agency.

***Each agency is responsible for its own purchasing transactions. This includes p-card transactions and purchase orders, the tracking of all such transactions, and reporting of those transactions to the appropriate SEOC representative.***

Agency purchasing managers are responsible to supply their agency's SEOC representative with a 24/7 phone number for agency purchasing staff support, and request that the SEOC representative involves them in every purchase. (Note: SEOC hours are 8 am to 8 pm, seven days a week.)

***Emergency Purchasing Procedure:***

Public Act 431 of 1984 provides an exception to competitive bidding during a state of emergency. However, responsible purchasing procedures are still the expectation for all procurement professionals (agency purchasing staff).

In addition to the notification and reporting expectations set forth above, transactions should be conducted and/or overseen by procurement professionals, with rare exception, in accordance with the following:

- Each agency makes their own determination when an emergency purchase order is required, and is then responsible for the supporting documentation
- Utilize existing State contracts where possible. Contact DTMB Procurement for help negotiating bulk rates or expedited shipments if needed, and for any concerns related to availability of funds on a contract
- Obtain three quotes whenever reasonably practicable

- Post bids online to the extent practicable
- Please escalate any questions to DTMB Procurement before executing a buy
- DTMB Procurement will assist any agency upon request to address supply chain issues (e.g. working with a national supplier to ensure a high volume supply of water filters are available)
- DTMB-Financial Services is not responsible for issuing emergency purchase orders on behalf of agencies with the exception of information technology related goods and services
- Maintain documentation supporting all transactions. Establish internal protocols to support this such as a single spreadsheet to track agency-wide transactions. Report your agency's expenses to the SEOC Finance team via your SEOC representative.

Questions, concerns, or comments should be directed to:

Primary Contact:

Rebecca Cook, Commodities Division Director

[Cookr6@michigan.gov](mailto:Cookr6@michigan.gov)

Cell: 517-930-4015

Secondary Contact:

Jeff Brownlee, Chief Procurement Officer

[brownleej@michigan.gov](mailto:brownleej@michigan.gov)

Cell: 517-930-3472

Sincerely,

Jeff Brownlee

Chief Procurement Officer

State of Michigan

---

**Sent:** Saturday, January 30, 2016 3:47 PM  
**To:** Roberts, John (DTMB)  
**Subject:** RE: Flint/Emergency purchasing

Sounds like it's still a bit of a mess. There is a meeting on Tuesday with some lower level folks in your shop, MSP, and DTMB. I am going to attend it and put this to bed. I sent Capt. Kelenski a copy of a memo I plan to distribute after that meeting provided there are no surprises which render my memo incorrect. He agreed with all material aspects of it, sending me only minor edits.

Attached is the memo. Any feedback you have is welcomed.

I'm worried about contracting related to the situation in general, but I heard on Friday (I think it was via Brom) that Bankowski is now engaged and working closely with Rich. Let me know if you want to talk about that statement of work from the accounting firm. I had some concerns which I shared with Brom.

Enjoy the rest of your weekend! Thanks for reaching out.  
Thanks,  
Jeff

From: Roberts, John (DTMB)  
Sent: Saturday, January 30, 2016 3:40 PM  
To: Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Subject: RE: Flint/Emergency purchasing

Do you have everything you need now?

From: Brownlee, Jeff (DTMB)  
Sent: Thursday, January 21, 2016 10:26 AM  
To: Roberts, John (DTMB); Stibitz, Brom (DTMB); Behen, David (DTMB); Duncan, Nancy (DTMB)  
Cc: Wellman, Jeff (DTMB); Minix, Connie (DTMB); Donnan, Chanda (DTMB)  
Subject: Flint/Emergency purchasing

Keeping this within DTMB for an initial discussion. I'd like to get 10 minutes with you all re: the emergency purchasing going on for Flint. The operating model currently in place is not working well according to my procurement leadership team (reps from all agencies) and my staff. I fear if we don't get ahead of this now, we may be causing ourselves some headaches down the road. More details when we talk.

If John and David agree to a call, Connie and Chanda, will you please coordinate? Thank you.

Jeff



---

**To:** Arbulu, Agustin (MDCR);Arwood, Steve (LARA);Clover Adams, Jamie (MDARD);Creagh, Keith (DEQ);Etue, Kriste (MSP);Johnson, Ruth (MDOS);Khoury, Nick (TREASURY);Lyon, Nick (DHHS);Maj. Gen. Gregory Vadnais DMVA;McPharlin, Pat (DIFS);Moritz, William (DNR);Roberts, John (DTMB);Schuette, Bill (AG);Steudle, Kirk (MDOT);Washington, Heidi E. (MDOC);Whiston, Brian (MDE);Winters, Jan (MCSC);Zimmer, Mike (LARA);Allan, Jon (DEQ);Barnes, Jeff (DMVA);Bowen, Scott (MSL);Brader, Valerie (LARA);Comai, Stephanie (TIA);Deloney, Andrew (LARA);Elsenheimer, Kevin (MSHDA);Goei, Bing (LARA);Hawks, Orlene (DTMB);Kalm, Rick (MGCB);Ringler, Doug (OAG);Waalkes, Marie (DTMB)

**Subject:** Flint Emergency Purchasing Procedures

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee  
Ofc: 517-284-7003  
Cell: 517-930-3472

---

**From:** Rigg, Steve (DTMB)  
**Sent:** Thursday, October 01, 2015 10:29 AM  
**To:** Cook, Rebecca (DTMB);Brownlee, Jeff (DTMB);Sanches, Christine (DHHS)  
**Cc:** Maynard, Sharon (DTMB);Fortino, Diane (DTMB);Stephen, Kimberly (DHHS);Kangas, Susan (DHHS);Smith, Terri (DHHS);Hanley, Farah (DHHS)  
**Subject:** RE: WATER FILTERS  
**Attachments:** Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf

Hello,

I just got the attached Brita filter specs available through Home Depot that attach to the faucet and meets the NSF-ANSI 53 standards. They currently have 10,000 of these available and are going to get back with me on price and when they could be shipped. Home Depot also stated that they could get the other 15,000.

*Steve Rigg*

Buyer, Commodities Division  
DTMB/Procurement  
Constitution Hall, First Floor NE  
525 W. Allegan Street  
P. O. Box 30026  
Lansing, MI 48933  
(517) 284-7043 (phone)  
(517) 335-0046 (fax)  
1-855-647-8724 (toll free customer service)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, October 01, 2015 10:10 AM  
**To:** Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>  
**Cc:** Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Hanley, Farah (DHHS) <hanleyf@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>  
**Subject:** WATER FILTERS

All

Chris updated me this morning that a voucher process is being considered. I've spoken with Grainger and updated them as well.

Grainger did receive some manufacturer feedback that typical residential filters that fit on a faucet may not meet the NSF certification and ANSI 53 standard, and provided Grainger with two examples of the type of filters that would. I thought this feedback was important to pass along for your immediate review. It may be helpful to both verify that

WalMart and Meijer have confirmed they can supply compliant filters, and possibly include make/models on the vouchers the stores would return for reimbursement. (This could prevent a store employee from providing a non-compliant model.) Any of you are welcome to directly contact Brent/Grainger with technical specification questions, and he would be happy to facilitate responses with manufacturers.

Grainger is continuing their research, as Plan B, until its confirmed that stores would have compliant filters in sufficient numbers for a voucher program.

Please let me know if you have questions.

Thank you.

Rebecca Cook

517-930-4015

---

**From:** Zinn, Brent [<mailto:Brent.Zinn@grainger.com>]

**Sent:** Thursday, October 01, 2015 9:18 AM

**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Subject:** NSF listed lead reduction systems

Rebecca,

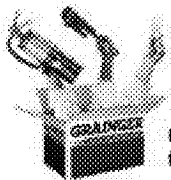
Attached are specs for two models that could be used in residential applications; however, the manufacturers current inventory position is very low. They are looking to see how long it would take to manufacturer additional stock. We have requested information from the supplier as to why they believe an accompanying faucet should be a requirement with the filtration system. I am awaiting their commentary and will pass it along as soon as I have it.

Thanks,

Brent

**Brent Zinn | Government Sales Manager | IN, MI | W.W. Grainger, Inc.**

5617 Enterprise Dr | Lansing, MI 48911 | Cell: (313) 701-5454 | Fax: (517) 882-7438



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---

**From:** Hyer, Howard [<mailto:Howard.Hyer@Pentair.com>]

**Sent:** Thursday, October 01, 2015 9:06 AM

**To:** Zinn, Brent

**Cc:** Flynn, Mike

**Subject:** NSF listed lead reduction systems

Brent,

Here are the specs for the systems we discussed. I have other options that I will document shortly.

If there are any further questions please call me at 800-279-9404 extension 3524.

Sincerely,

Howard Hyer  
Technical Support Specialist II  
Pentair Residential Filtration, LLC.  
[Howard.Hyer@Pentair.com](mailto:Howard.Hyer@Pentair.com)

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The Public Health and Safety Organization

## NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, September 30, 2015** at 12:15 a.m. Eastern Time. Please [contact NSF International](#) to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:

<http://info.nsf.org/Certified/DWTU/Listings.asp?TradeName=ff%2D100&Standard=053&hdModlStd=ModlStd&>

Note: Certain claims, such as Arsenic (Pentavalent) Reduction, appear as active links, allowing you to access additional information regarding the specific contaminants.

---

## NSF/ANSI 53 Drinking Water Treatment Units - Health Effects

---

### The Brita Products Company

1221 Broadway  
Oakland, CA 94612  
United States  
800-24-BRITA

**Facility :** # 1 Brampton, Ontario, Canada

Brand Name / Trade Name / Model	Replacement Element	Service Cycle (gallons)	Flow Rate (gpm)	Claim
<b>Faucet Mount</b>				
Brita Faucet Filtration System SAFF-100	FR-200	100(1)	.58	2,4-D Reduction Asbestos Reduction Alachlor Reduction Atrazine Reduction Benzene Reduction Carbofuran Reduction Carbon Tetrachloride Reduction Chlordane Reduction Chlorobenzene Reduction

Brita® Faucet Filtration System FF-100[2] [3] [Pb]	FR-200	100(1)	.58	Endrin Reduction
				Ethylbenzene Reduction
				Lead Reduction
				Lindane Reduction
				Methoxychlor Reduction
				O-Dichlorobenzene Reduction
				Simazine Reduction
				Styrene Reduction
				Tetrachloroethylene Reduction
				Toluene Reduction
				Toxaphene Reduction
				Trichloroethylene Reduction
				Trihalomethanes (TTHM) Reduction
				Turbidity Reduction
				VOC Reduction
				2,4-D Reduction
				Asbestos Reduction
				Alachlor Reduction
				Atrazine Reduction
				Carbofuran Reduction
				Chlordane Reduction
				Cyst Reduction
				O-Dichlorobenzene Reduction
				Lead Reduction
				Lindane Reduction
				Methoxychlor Reduction
				Monochlorobenzene Reduction
				Styrene Reduction
				Trichloroethylene Reduction
				Toxaphene Reduction
				Turbidity Reduction
				Benzene Reduction
				Carbon Tetrachloride Reduction
				Endrin Reduction
				Ethylbenzene Reduction
				Simazine Reduction
				Tetrachloroethylene Reduction
				Toluene Reduction
				VOC Reduction
				Trihalomethanes (TTHM) Reduction

- (1) Claims of capacity or rated service cycle are not applicable for mechanical filtration.
- [2] Model available in white, chrome, and black.
- [3] As of production code beginning P52120.
- [Pb] Product also evaluated and determined to possess weighted average lead content of  $\leq 0.25\%$  and complies with lead content requirements for "lead free" plumbing as defined by California, Vermont, Maryland, and Louisiana state laws and the U.S. Safe Drinking Water Act.

NOTE: All replacement elements are components.

The category of VOC (Volatile Organic Chemical) includes a number of chemicals that are both man-made and naturally occurring. Water from wells and utilities may contain some of these contaminants. Some VOCs are pesticides, herbicides, or insecticides that seep into the ground water after application. Other VOCs enter the water supply through industrial or other waste disposal. This category also includes total trihalomethanes, which are a by-product of chlorination.

A VOC reduction claim by the manufacturer means the system reduces the concentration of all of the following contaminants:

alachlor	endrin	simazine
atrazine	ethylbenzene	styrene
benzene	ethylene dibromide (EDB)	1,1,2,2-tetrachloroethane
carbofuran	haloacetonitriles	tetrachloroethylene
carbon tetrachloride	bromochloroacetonitrile	toluene
chlorobenzene	dibromoacetonitrile	2,4,5-TP(silvex)
chloropicrin	dichloroacetonitrile	tribromoacetic acid
2,4-D	trichloroacetonitrile	1,2,4-trichlorobenzene
dibromochloropropane (DBCP)	haloketones	1,1,1-trichloroethane
o-dichlorobenzene	1,1-dichloro-2-propanone	1,1,2-trichloroethane
p-dichlorobenzene	1,1,1-trichloro-2-propanone	trichloroethylene
1,2-dichloroethane	heptachlor	trihalomethanes (TTHM)
1,1-dichloroethylene	heptachlor epoxide	bromodichloromethane
cis-1,2-dichloroethylene	hexachlorobutadiene	bromoform
trans-1,2-dichloroethylene	hexachlorocyclopentadiene	chlorodibromomethane
1,2-dichloropropane	lindane	chloroform
cis-1,3-dichloropropylene	methoxychlor	xylenes
dinoseb	pentachlorophenol	

**Facility :** Shenzhen, China

**Replacement    Service Cycle    Flow Rate**

Brand Name / Trade Name / Model	Element	(gallons)	(gpm)	Claim
<b>Faucet Mount [Pb]</b>				
Brita Faucet Filtration System SAFF-100	FR-200	100(1)	.58	2,4-D Reduction Asbestos Reduction Alachlor Reduction Atrazine Reduction Benzene Reduction Carbofuran Reduction Carbon Tetrachloride Reduction Chlordane Reduction Chlorobenzene Reduction Endrin Reduction Ethylbenzene Reduction Lead Reduction Lindane Reduction Methoxychlor Reduction O-Dichlorobenzene Reduction Simazine Reduction Styrene Reduction Tetrachloroethylene Reduction Toluene Reduction Toxaphene Reduction Trichloroethylene Reduction Trihalomethanes (TTHM) Reduction Turbidity Reduction VOC Reduction

(1) Claims of capacity or rated service cycle are not applicable for mechanical filtration.  
 [Pb] Product also evaluated and determined to possess weighted average lead content of  $\leq 0.25\%$  and complies with lead content requirements for "lead free" plumbing as defined by California, Vermont, Maryland, and Louisiana state laws and the U.S. Safe Drinking Water Act.

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benzene	ethylene dibromide (EDB)	1,1,2,2-tetrachloroethane
carbofuran	haloacetonitriles	tetrachloroethylene
carbon tetrachloride	bromochloroacetonitrile	toluene
chlorobenzene	dibromoacetonitrile	2,4,5-TP(silvex)
chloropicrin	dichloroacetonitrile	tribromoacetic acid
2,4-D	trichloroacetonitrile	1,2,4-trichlorobenzene
dibromochloropropane (DBCP)	halo ketones	1,1,1-trichloroethane
o-dichlorobenzene	1,1-dichloro-2-propanone	1,1,2-trichloroethane
p-dichlorobenzene	1,1,1-trichloro-2-propanone	trichloroethylene
1,2-dichloroethane	heptachlor	trihalomethanes (TTHM)
1,1-dichloroethylene	heptachlor epoxide	bromodichloromethane
cis-1,2-dichloroethylene	hexachlorobutadiene	bromoform
trans-1,2-dichloroethylene	hexachlorocyclopentadiene	chlorodibromomethane
1,2-dichloropropane	lindane	chloroform
cis-1,3-dichloropropylene	methoxychlor	xylenes
dinoseb	pentachlorophenol	

---

Number of matching Manufacturers is 1

Number of matching Products is 3

Processing time was 0 seconds

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**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:03 AM  
**To:** Hanley, Farah (DHHS);Cook, Rebecca (DTMB);Brownlee, Jeff (DTMB);Sanches, Christine (DHHS);Maynard, Sharon (DTMB);Fortino, Diane (DTMB);Stephen, Kimberly (DHHS);Kangas, Susan (DHHS);Smith, Terri (DHHS);Rigg, Steve (DTMB);Lasher, Geralyn (DHHS);Scott, Teri (DHHS);Gillette, Patrice (DHHS);Carey, Marilyn (DHHS);Becker, Timothy (DHHS);Beurer, Terrence (DHHS);Epkey, Amy (DEQ);McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Yes -- we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:01 AM  
**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** Flint Water Update  
**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth -- Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update  
**Attachments:** Water Filter Voucher.pdf  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:03 AM  
**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:01 AM  
**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** Flint Water Update  
**Importance:** High

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This is the plan for now. Elizabeth -- Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

Voucher #: \_\_\_\_\_

This Voucher is good for one (1) water filter.

Water filter model #: \_\_\_\_\_

Available at the following stores:

Meijer  
1234 Any Street, Flint Michigan, 48507

Walmart  
5678 Any Street, Flint Michigan, 48507

Client name: \_\_\_\_\_

Case #: \_\_\_\_\_

Caseworker: \_\_\_\_\_

Date: \_\_\_\_\_



Voucher #: \_\_\_\_\_

This Voucher is good for one (1) water filter.

Water filter model #: \_\_\_\_\_

Available at the following stores:

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Walmart  
5678 Any Street, Flint Michigan, 48507

Client name: \_\_\_\_\_

Case #: \_\_\_\_\_

Caseworker: \_\_\_\_\_

Date: \_\_\_\_\_



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**From:** Epkey, Amy (DEQ)  
**Sent:** Friday, October 02, 2015 10:17 AM  
**To:** Hanley, Farah (DHHS);Cook, Rebecca (DTMB);Brownlee, Jeff (DTMB);Sanches, Christine (DHHS);Maynard, Sharon (DTMB);Fortino, Diane (DTMB);Stephen, Kimberly (DHHS);Kangas, Susan (DHHS);Smith, Terri (DHHS);Rigg, Steve (DTMB);Hertel, Elizabeth (DHHS);Lasher, Geralyn (DHHS);Scott, Teri (DHHS);Gillette, Patrice (DHHS);Carey, Marilyn (DHHS);Becker, Timothy (DHHS);Beurer, Terrence (DHHS);McDonald, Paul (DEQ);Renteria, Sylvia (DEQ);Pallone, Maggie (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Thank you for recapping the recent agreements. DEQ will get the \$1 million transfer to DHHS processed.

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 10:01 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Lasher, Geralyn (DHHS) <lasherG@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** Flint Water Update  
**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

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This is the plan for now. Elizabeth -- Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

---

**From:** Beurer, Terrence (DHHS)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Cook, Rebecca (DTMB)  
**Cc:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)  
**Subject:** Re: Flint Water Update

Yes, this is a must.

Sent from my iPhone

On Oct 2, 2015, at 10:20, Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)> wrote:

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:03 AM  
**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice



(DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in Genesee County to confirm the willingness/capability for the second action item Farah detailed.

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, GERALYN (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

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Thanks

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**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:22 AM  
**To:** Cook, Rebecca (DTMB); Hanley, Farah (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

I believe that was included on the original draft. We are working with the stores also to identify the types that will qualify.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

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Thanks

---

**From:** Cooley, Tom (DTMB)  
**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update  
**Attachments:** Water Filter Voucher\_v2.pdf

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasergh@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher -- Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

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Rebecca

---

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**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, GERALYN (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

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**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, GERALYN (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

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Voucher #: .....

This Voucher is good for one (1) water filter.

WATER FILTERS THAT ARE NATIONAL SANITATION FOUNDATION CERTIFIED  
TO REMOVE LEAD AND ANSI STANDARD 53.

**TO BE USED ONLY AT THESE LOCATIONS:**

Meijer's: 233 S. Center Rd. Burton, MI 48519  
2474 W. Hill Rd. Flint, MI 48507

Walmart: 4313 Corunna Rd. Flint, MI 48532  
5323 E. Court St. N. Burton, MI 48509

Client name: .....

Case #: .....

Caseworker: .....

Date: .....



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Client name: .....

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---

**From:** Lasher, Geralyn (DHHS)  
**Sent:** Friday, October 02, 2015 10:27 AM  
**To:** Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

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**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS) <hanleyf@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasergh@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
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Tom Cooley  
Printing Services.  
517-322-5487

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**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>



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**To:** Sanches, Christine (DHHS); Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

DHHS front office is still confirming with the Community Action Agency so that item #2 noted in the email (way below) is still on hold.

---

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**Sent:** Friday, October 02, 2015 10:30 AM  
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**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Tom,

Please add the words "tap water faucet" before filter.

Chris

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**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

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**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:03 AM  
**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:01 AM  
**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** Flint Water Update  
**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:33 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)  
**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <laserhg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:03 AM  
**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Yes -- we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:01 AM  
**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** Flint Water Update  
**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>



---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:41 AM  
**To:** Hertel, Elizabeth (DHHS)  
**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Sanches, Christine (DHHS)  
**Subject:** RE: Flint Water Update

Thanks – Do you know if there have been any negotiations in pricing and if we'll get these at cost? Just trying to figure out if we'll have enough money because the under sink filters are more than double the price – some are up to \$100.

Geralyn – Do you know?

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:33 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)  
**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, GERALYN (DHHS)  
**Sent:** Friday, October 2, 2015 10:27 AM  
**To:** Cooley, Tom (DTMB) <[coolevt@michigan.gov](mailto:coolevt@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)

**Sent:** Friday, October 02, 2015 10:26 AM

**To:** Hanley, Farah (DHHS) <hanleyf@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:24 AM

**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

---

**From:** Cook, Rebecca (DTMB)

**Sent:** Friday, October 02, 2015 10:21 AM

**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

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**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes -- we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS);

Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
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This is the plan for now. Elizabeth -- Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 02, 2015 11:42 AM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)  
**Subject:** RE: Flint Water Update  
**Attachments:** Water Filter Voucher\_v4.pdf

Latest proof attached. Tom is hoping to get approval on the format attached – format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 11:35 AM  
**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>  
**Cc:** Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Cooley, Tom (DTMB) <cooleytm@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

#### Update

#### DTMB and DHHS Purchasing

1. It is now a **GO** on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:33 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)  
**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

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**To:** Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)  
**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:24 AM

**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <laserger@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

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**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <laserger@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)  
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**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Yes -- we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

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**Cc:** Ray, Patricia (DHHS)  
**Subject:** Flint Water Update  
**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this



purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.

2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth -- Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

**Voucher #: 00001**

This Voucher is good for one (1) tap water faucet filter  
as specified below:

TAP WATER FAUCET FILTER MUST BE NATIONAL SANITATION  
FOUNDATION (NSF) CERTIFIED TO REMOVE LEAD AND  
MEET ANSI STANDARD 53.

**TO BE USED ONLY AT THESE LOCATIONS:**

Meijer's: 2333 S. Center Rd. Burton, MI 48519  
2474 W. Hill Rd. Flint, MI 48507  
Walmart: 4313 Corunna Rd. Flint, MI 48532  
5323 E. Court St. N. Burton, MI 48509

Client name: .....

Case #: .....

Caseworker: .....

Date: .....



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5323 E. Court St. N. Burton, MI 48509

Client name: .....

Case #: .....

Caseworker: .....

Date: .....



---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 11:46 AM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Sanches, Christine (DHHS); Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS)  
**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 02, 2015 11:42 AM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)  
**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 11:35 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB)

<FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <SanchesC@michigan.gov> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, GERALYN (DHHS)

**Sent:** Friday, October 2, 2015 10:27 AM

**To:** Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Hanley, Farah (DHHS) <hanleyf@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB)

<BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)

**Sent:** Friday, October 02, 2015 10:26 AM

**To:** Hanley, Farah (DHHS) <hanleyf@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <laserhg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>

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**Subject:** RE: Flint Water Update  
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**Subject:** RE: Flint Water Update

Farah

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**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

---

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This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>



---

**From:** Rigg, Steve (DTMB)  
**Sent:** Friday, October 02, 2015 12:26 PM  
**To:** Hertel, Elizabeth (DHHS); Hanley, Farah (DHHS)  
**Cc:** Sanches, Christine (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS)  
**Subject:** RE: Flint Water Update  
**Attachments:** Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf; 310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf; 310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?
  - a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
  - b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
  - c. Specs for Brita faucet filter is attached.
  - d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each.
3. Will you be offering cartridge replacements? If yes, how many?
4. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja – cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn – cell number 313-701-5454
5. What is the physical location that items will be delivered to?

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division  
DTMB/Procurement  
Constitution Hall, First Floor NE

525 W. Allegan Street  
P. O. Box 30026  
Lansing, MI 48933  
(517) 284-7043 (phone)  
(517) 335-0046 (fax)  
1-855-647-8724 (toll free customer service)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

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**Sent:** Friday, October 02, 2015 11:46 AM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>  
**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 02, 2015 11:42 AM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)  
**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff

before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 11:35 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:33 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)  
**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, GERALYN (DHHS)  
**Sent:** Friday, October 2, 2015 10:27 AM  
**To:** Cooley, Tom (DTMB) <[cooleytc@michigan.gov](mailto:cooleytc@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)  
**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher -- Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS)

<KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <laserhg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.

- a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>



The Public Health and Safety Organization

## NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, September 30, 2015** at 12:15 a.m. Eastern Time. Please [contact NSF International](#) to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:

<http://info.nsf.org/Certified/DWTU/Listings.asp?TradeName=ff%2D100&Standard=053&hdModlStd=ModlStd&>

Note: Certain claims, such as Arsenic (Pentavalent) Reduction, appear as active links, allowing you to access additional information regarding the specific contaminants.

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## NSF/ANSI 53 Drinking Water Treatment Units - Health Effects

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### The Brita Products Company

1221 Broadway  
Oakland, CA 94612  
United States  
800-24-BRITA

**Facility :** # 1 Brampton, Ontario, Canada

Brand Name / Trade Name / Model	Replacement Element	Service Cycle (gallons)	Flow Rate (gpm)	Claim
<b>Faucet Mount</b>				
Brita Faucet Filtration System SAFF-100	FR-200	100(1)	.58	2,4-D Reduction Asbestos Reduction Alachlor Reduction Atrazine Reduction Benzene Reduction Carbofuran Reduction Carbon Tetrachloride Reduction Chlordane Reduction Chlorobenzene Reduction



Brita® Faucet Filtration System FF-100[2] [3] [Pb]	FR-200	100(1)	.58	Endrin Reduction
				Ethylbenzene Reduction
				Lead Reduction
				Lindane Reduction
				Methoxychlor Reduction
				O-Dichlorobenzene Reduction
				Simazine Reduction
				Styrene Reduction
				Tetrachloroethylene Reduction
				Toluene Reduction
				Toxaphene Reduction
				Trichloroethylene Reduction
				Trihalomethanes (TTHM) Reduction
				Turbidity Reduction
				VOC Reduction
				2,4-D Reduction
				Asbestos Reduction
				Alachlor Reduction
				Atrazine Reduction
				Carbofuran Reduction
				Chlordane Reduction
				Cyst Reduction
				O-Dichlorobenzene Reduction
				Lead Reduction
				Lindane Reduction
				Methoxychlor Reduction
				Monochlorobenzene Reduction
				Styrene Reduction
				Trichloroethylene Reduction
				Toxaphene Reduction
				Turbidity Reduction
				Benzene Reduction
				Carbon Tetrachloride Reduction
				Endrin Reduction
				Ethylbenzene Reduction
				Simazine Reduction
				Tetrachloroethylene Reduction
				Toluene Reduction
				VOC Reduction
				Trihalomethanes (TTHM) Reduction

- (1) Claims of capacity or rated service cycle are not applicable for mechanical filtration.
- [2] Model available in white, chrome, and black.
- [3] As of production code beginning P52120.
- [Pb] Product also evaluated and determined to possess weighted average lead content of  $\leq 0.25\%$  and complies with lead content requirements for "lead free" plumbing as defined by California, Vermont, Maryland, and Louisiana state laws and the U.S. Safe Drinking Water Act.

NOTE: All replacement elements are components.

The category of VOC (Volatile Organic Chemical) includes a number of chemicals that are both man-made and naturally occurring. Water from wells and utilities may contain some of these contaminants. Some VOCs are pesticides, herbicides, or insecticides that seep into the ground water after application. Other VOCs enter the water supply through industrial or other waste disposal. This category also includes total trihalomethanes, which are a by-product of chlorination.

A VOC reduction claim by the manufacturer means the system reduces the concentration of all of the following contaminants:

alachlor	endrin	simazine
atrazine	ethylbenzene	styrene
benzene	ethylene dibromide (EDB)	1,1,2,2-tetrachloroethane
carbofuran	haloacetonitriles	tetrachloroethylene
carbon tetrachloride	bromochloroacetonitrile	toluene
chlorobenzene	dibromoacetonitrile	2,4,5-TP(silvex)
chloropicrin	dichloroacetonitrile	tribromoacetic acid
2,4-D	trichloroacetonitrile	1,2,4-trichlorobenzene
dibromochloropropane (DBCP)	haloketones	1,1,1-trichloroethane
o-dichlorobenzene	1,1-dichloro-2-propanone	1,1,2-trichloroethane
p-dichlorobenzene	1,1,1-trichloro-2-propanone	trichloroethylene
1,2-dichloroethane	heptachlor	trihalomethanes (TTHM)
1,1-dichloroethylene	heptachlor epoxide	bromodichloromethane
cis-1,2-dichloroethylene	hexachlorobutadiene	bromoform
trans-1,2-dichloroethylene	hexachlorocyclopentadiene	chlorodibromomethane
1,2-dichloropropane	lindane	chloroform
cis-1,3-dichloropropylene	methoxychlor	xylenes
dinoseb	pentachlorophenol	

**Facility :** Shenzhen, China

**Replacement    Service Cycle    Flow Rate**

Brand Name / Trade Name / Model	Element	(gallons)	(gpm)	Claim
<b>Faucet Mount [Pb]</b>				
Brita Faucet Filtration System SAFF-100	FR-200	100(1)	.58	2,4-D Reduction Asbestos Reduction Alachlor Reduction Atrazine Reduction Benzene Reduction Carbofuran Reduction Carbon Tetrachloride Reduction Chlordane Reduction Chlorobenzene Reduction Endrin Reduction Ethylbenzene Reduction Lead Reduction Lindane Reduction Methoxychlor Reduction O-Dichlorobenzene Reduction Simazine Reduction Styrene Reduction Tetrachloroethylene Reduction Toluene Reduction Toxaphene Reduction Trichloroethylene Reduction Trihalomethanes (TTHM) Reduction Turbidity Reduction VOC Reduction

(1) Claims of capacity or rated service cycle are not applicable for mechanical filtration.  
 [Pb] Product also evaluated and determined to possess weighted average lead content of  $\leq 0.25\%$  and complies with lead content requirements for "lead free" plumbing as defined by California, Vermont, Maryland, and Louisiana state laws and the U.S. Safe Drinking Water Act.

NOTE: All replacement elements are components.

The category of VOC (Volatile Organic Chemical) includes a number of chemicals that are both man-made and naturally occurring. Water from wells and utilities may contain some of these contaminants. Some VOCs are pesticides, herbicides, or insecticides that seep into the ground water after application. Other VOCs enter the water supply through industrial or other waste disposal. This category also includes total trihalomethanes, which

are a by-product of chlorination.

A VOC reduction claim by the manufacturer means the system reduces the concentration of all of the following contaminants:

alachlor	endrin	simazine
atrazine	ethylbenzene	styrene
benzene	ethylene dibromide (EDB)	1,1,2,2-tetrachloroethane
carbofuran	haloacetonitriles	tetrachloroethylene
carbon tetrachloride	bromochloroacetonitrile	toluene
chlorobenzene	dibromoacetonitrile	2,4,5-TP(silvex)
chloropicrin	dichloroacetonitrile	tribromoacetic acid
2,4-D	trichloroacetonitrile	1,2,4-trichlorobenzene
dibromochloropropane (DBCP)	halo ketones	1,1,1-trichloroethane
o-dichlorobenzene	1,1-dichloro-2-propanone	1,1,2-trichloroethane
p-dichlorobenzene	1,1,1-trichloro-2-propanone	trichloroethylene
1,2-dichloroethane	heptachlor	trihalomethanes (TTHM)
1,1-dichloroethylene	heptachlor epoxide	bromodichloromethane
cis-1,2-dichloroethylene	hexachlorobutadiene	bromoform
trans-1,2-dichloroethylene	hexachlorocyclopentadiene	chlorodibromomethane
1,2-dichloropropane	lindane	chloroform
cis-1,3-dichloropropylene	methoxychlor	xylenes
dinoseb	pentachlorophenol	

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Number of matching Manufacturers is 1

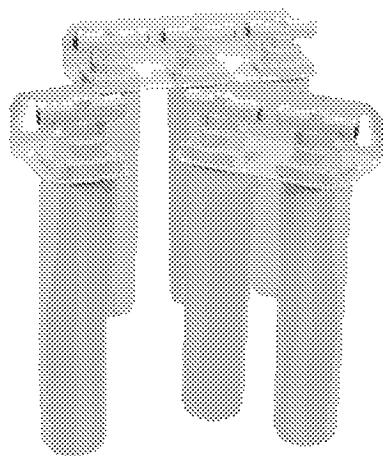
Number of matching Products is 3

Processing time was 0 seconds



## PENTEK® QUICK-CHANGE FILTRATION SYSTEMS

DESIGNED FOR EASY INSTALLATION AND CARTRIDGE CHANGE



Pentair® Pentek® Quick-Change Filtration Systems are designed for easy installation and cartridge change. 1/4" or 3/8" push fittings, as well as 1/4" compression fittings, on the inlet and outlet sides of the filter head allow effortless installation.

The cartridge filter is easily changed with a quarter-turn of the filter. Water is automatically shut off during the change of the filter through the auto shut-off feature built into the filter head. This feature eliminates the need for additional shut-off valves to and from the filter system.

The Pentek Quick-Change Filter System offers several cartridge options to meet the demands of varying water conditions. The granular activated carbon cartridge offers chlorine taste and odor performance with low pressure drop. The EP carbon block filter offers superior chlorine taste and odor performance with 5 micron sediment reduction by mechanical means. The CBR carbon block cartridge has enhanced performance capabilities for the reduction of chlorine taste & odor, lead, atrazine and lindane.

The CBR carbon block is NSF/ANSI Standard 53 certified to reduce cysts such as *Cryptosporidium* and *Giardia* by mechanical means.

### FEATURES/BENEFITS

Easy to install, easy filter change  
Reversible metal brackets for 1, 2 or 3 cartridges  
1/4-inch or 3/8-inch John Guest® push-fit connections available

1/4-inch compression connections available for flex hose connections  
Cartridge models to choose from to meet specific application needs

### APPLICATIONS

Under-sink drinking water  
Refrigerator/icemaker  
Pre/post RO membrane  
Vending machine

Ice machine  
Coffee machine  
Other OEM applications.



QC10-EP, QC10-GAC, QC10-TSGAC, and QC10-CBR are Tested and Certified by NSF/ANSI to Standard 42.



QC10-CBR is Tested and Certified by NSF/ANSI to Standard 53.

## SPECIFICATIONS AND PERFORMANCE

PART #	MODEL #	CARTRIDGE COLOR	FILTER LIFE	FLOW RATE	RATING (NOMINAL)	1/4" THREADED	1/4" JG PUSH FIT	3/8" JG PUSH FIT
158682	QC10-CBR	White	500 gallons (1893 L)	0.5 gpm (1.9 Lpm)	0.5-micron*	•	•	•
158683	QC10-EP	White	1,500 gallons (5670 L)	0.5 gpm (1.9 Lpm)	5-micron*	•	•	•
158684	QC10-CAC	Blue	2,500 gallons (9460 L)	0.75 gpm (2.8 Lpm)	—	•	•	•
158723	QC10-TSGAC	Blue	1,700 gallons (6435 L)	0.75 gpm (2.8 Lpm)	—	—	•	•

\*Reduces particles as small as this micron rating in size by mechanical means.

†Not Performance Tested or Certified by NSF



### FILTRATION & PROCESS

5730 NORTH GLEN PARK ROAD, MILWAUKEE, WI 53209

P: 262.238.4400 | F: 262.238.4404 | [WWW.PENTAIRAQUA.COM](http://WWW.PENTAIRAQUA.COM) | CUSTOMER CARE: 800.279.9404

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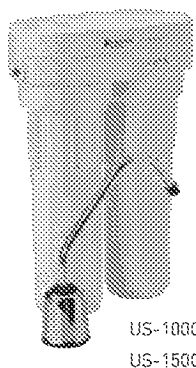
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## PENTEK® US-1000 & US-1500 UNDERSINK DRINKING WATER SYSTEMS

OFFERS A VARIETY OF CONTAMINANT REDUCTION CAPABILITIES



US-1000  
US-1500

Pentair® Pentek® offers two systems suitable for undersink, point-of-use installation. They are NSF/ANSI Standard 53 certified to reduce cysts such as *Cryptosporidium* and *Giardia* by mechanical means.

Both systems come complete with cartridges, a long reach faucet, and installation hardware. The US-1500 features an electronic monitor for filter replacement. The US-1000 features MTBE reduction.

### FEATURES/BENEFITS

Designed for water treatment professionals

Sleek appearance for both models

One piece manifold eliminates tubing connections between cartridges

Slim profile sumps support replacement cartridge business

Simple John Guest style tubing connections

### APPLICATIONS

Point of use drinking water

Undersink drinking water

Cooking and icemakers

Vending machine

Coffee machine



The US-1000 & US-1500 are  
Tested and Certified by  
NSF/ANSI to Standard 42 & 53

## SPECIFICATIONS AND PERFORMANCE

PART #	MODEL #	MAXIMUM DIMENSIONS	PRESSURE RANGE	FILTER LIFE/ DAILY CAPACITY
160287	US-1000	15" W x 11" D x 6.5" H (381mm W x 279mm D x 165mm H)	10-125 psi	500 gallons
160288	US-1500	15" W x 11" D x 6.5" H (381mm W x 279mm D x 165mm H)	10-125 psi	1000 gallons

## REPLACEMENT PARTS

MODEL #	DESCRIPTION	PART #	FITS
P-250	Cartridge Set	155584-43	US-1500
P-250A	Cartridge Set	155832-43	US-1000
SW-5	Spanner Wrench	150424	US-1000, US-1500
	Faucet	244960	US-1000, US-1500



### FILTRATION & PROCESS

5730 NORTH GLEN PARK ROAD, MILWAUKEE, WI 53209

P: 262.238.4400 | F: 262.238.4404 | [WWW.PENTAIRAQUA.COM](http://WWW.PENTAIRAQUA.COM) | CUSTOMER CARE: 800.279.9404

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---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 1:15 PM  
**To:** Rigg, Steve (DTMB)  
**Cc:** Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS)  
**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
- b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
- c. Specs for Brita faucet filter is attached.
- d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

4. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?

- a. The main contact person for Home Depot is David Khanuja -- cell number 248-826-8907
- b. The main contact person for Grainger is Brent Zinn -- cell number 313-701-5454

Chris Sanches

5. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB)

<[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB)

<[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS)

<[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>;

Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

---

**From:** Sanches, Christine (DHHS)

**Sent:** Friday, October 02, 2015 11:42 AM

**To:** Hanley, Farah (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)

**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 11:35 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS)

<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[coolevt@michigan.gov](mailto:coolevt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a **GO** on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, GERALYN (DHHS)

**Sent:** Friday, October 2, 2015 10:27 AM

**To:** Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey,

Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ)

<mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)

**Sent:** Friday, October 02, 2015 10:26 AM

**To:** Hanley, Farah (DHHS) <hanleyf@michigan.gov>; Cook, Rebecca (DTMB)

<CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS)

<SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>;

Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS)

<STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith,

Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>;

Lasher, Geralyn (DHHS) <laserger@michigan.gov>; Scott, Teri (DHHS)

<ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey,

Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS)

<beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey,

Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ)

<mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley

Printing Services.

517-322-5487

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:24 AM

**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS)

<HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches,

Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB)

<maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>;

Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS)

<KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve

(DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <laserger@michigan.gov>; Scott,

Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS)

<GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker,

Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS)

<BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul

(DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyT@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher -- Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

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**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:03 AM  
**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS);

Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in Genesee County to confirm the willingness/capability for the second action item Farah detailed.

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geraldyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee County to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>



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**From:** Schoenow, Kris (DHHS)  
**Sent:** Friday, October 02, 2015 1:32 PM  
**To:** Hanley, Farah (DHHS); Rigg, Steve (DTMB)  
**Cc:** Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** RE: Flint Water Update

I will check with GCCARD on where a truck load of filters could be delivered and stored.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
schoenowk@michigan.gov

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:15 PM  
**To:** Rigg, Steve (DTMB) <RiggS@michigan.gov>  
**Cc:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Lasher, GERALYN (DHHS) <lasherg@michigan.gov>; Cooley, Tom (DTMB) <cooleyT@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>  
**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
- b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
- c. Specs for Brita faucet filter is attached.
- d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja -- cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn -- cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

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**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 02, 2015 11:42 AM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)  
**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached – format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 11:35 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

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**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:33 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)  
**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, GERALYN (DHHS)  
**Sent:** Friday, October 2, 2015 10:27 AM  
**To:** Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)  
**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS) <hanleyf@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, GERALYN (DHHS) <lasherg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, GERALYN (DHHS) <lasherg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyT@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher -- Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, GERALYN (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, GERALYN (DHHS) <lasergh@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

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**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:03 AM  
**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:01 AM  
**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** Flint Water Update  
**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water



filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth -- Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 02, 2015 1:33 PM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Rigg, Steve (DTMB); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS)  
**Subject:** RE: Flint Water Update  
**Attachments:** Water Filter Voucher\_v6.pdf

Latest version of voucher is attached.

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:15 PM  
**To:** Rigg, Steve (DTMB) <RiggS@michigan.gov>  
**Cc:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>  
**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
  - b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
  - c. Specs for Brita faucet filter is attached.
  - d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja – cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn – cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division  
DTMB/Procurement  
Constitution Hall, First Floor NE  
525 W. Allegan Street  
P. O. Box 30026  
Lansing, MI 48933  
(517) 284-7043 (phone)  
(517) 335-0046 (fax)  
1-855-647-8724 (toll free customer service)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

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**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 11:46 AM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>  
**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 02, 2015 11:42 AM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS);

Hertel, Elizabeth (DHHS)  
**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 11:35 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:33 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul

(DEQ); Ray, Patricia (DHHS)  
**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, GERALYN (DHHS)  
**Sent:** Friday, October 2, 2015 10:27 AM  
**To:** Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)  
**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS)

<STEPHENK@michigan.gov>; Kangas, Susan (DHHS)  
<KangasS1@michigan.gov>; Smith, Terri (DHHS)  
<SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>;  
Lasher, GERALYN (DHHS) <lasergh@michigan.gov>; Scott, Teri (DHHS)  
<ScottT13@michigan.gov>; Gillette, Patrice (DHHS)  
<GilletteP@michigan.gov>; Carey, Marilyn (DHHS)  
<careym@michigan.gov>; Becker, Timothy (DHHS)  
<beckert1@michigan.gov>; Beurer, Terrence (DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>;  
McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, GERALYN (DHHS) <lasergh@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyT@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, GERALYN (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeva@michigan.gov](mailto:epkeva@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:03 AM  
**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, GERALYN (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ);



McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Yes -- we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:01 AM  
**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** Flint Water Update  
**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth -- Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

**Voucher #: 00001**

**This Voucher is good for one (1) tap water faucet filter  
as specified below:**

**TAP WATER FAUCET FILTER MUST BE NATIONAL SANITATION  
FOUNDATION (NSF) CERTIFIED TO REMOVE LEAD AND  
MEET ANSI STANDARD 53.**

**TO BE USED ONLY AT THESE LOCATIONS:**

**Meijer's: 2333 S. Center Rd. Burton, MI 48519**

**2474 W. Hill Rd. Flint, MI 48507**

**Walmart: 4313 Corunna Rd. Flint, MI 48532**

**5323 E. Court St. N. Burton, MI 48509**

**Client name: .....**

**Date: .....**

Official Genesee County DHHS Seal



DHHS County Director/District Manager Signature

Date:

.....

.....



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**From:** Beurer, Terrence (DHHS)  
**Sent:** Friday, October 02, 2015 1:39 PM  
**To:** Sanches, Christine (DHHS); Hanley, Farah (DHHS)  
**Cc:** Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Rigg, Steve (DTMB); Becker, Timothy (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS)  
**Subject:** RE: Flint Water Update

We have reviewed and approve.

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**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 2, 2015 1:33 PM  
**To:** Hanley, Farah (DHHS) <hanleyf@michigan.gov>  
**Cc:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>  
**Subject:** RE: Flint Water Update

Latest version of voucher is attached.

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:15 PM  
**To:** Rigg, Steve (DTMB) <RiggS@michigan.gov>  
**Cc:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>  
**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 1:41 PM  
**To:** Beurer, Terrence (DHHS)  
**Cc:** Sanches, Christine (DHHS); Hertel, Elizabeth (DHHS); Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Rigg, Steve (DTMB); Becker, Timothy (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS)  
**Subject:** Re: Flint Water Update

Terry-Just to be clear-if we approve this voucher-once the decision is made to move forward on it- it is for water faucets only.

Sent from my iPhone

On Oct 2, 2015, at 1:38 PM, Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)> wrote:

We have reviewed and approve.

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 2, 2015 1:33 PM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>  
**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** RE: Flint Water Update

Latest version of voucher is attached.

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:15 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane

(DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <RiggS@michigan.gov> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
- b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
- c. Specs for Brita faucet filter is attached.
- d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?

- a. The main contact person for Home Depot is David Khanuja -- cell number 248-826-8907
- b. The main contact person for Grainger is Brent Zinn -- cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca

(DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>  
**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <hanleyf@michigan.gov> wrote:

Thanks Chris and Tom – it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 02, 2015 11:42 AM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)  
**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached – format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 11:35 AM  
**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>  
**Cc:** Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Cooley, Tom



(DTMB) <cooleytm@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a **GO** on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS)

<SanchesC@michigan.gov> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, GERALYN (DHHS)

**Sent:** Friday, October 2, 2015 10:27 AM

**To:** Cooley, Tom (DTMB) <[cooley\\_t@michigan.gov](mailto:cooley_t@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)

**Sent:** Friday, October 02, 2015 10:26 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS)

<beckert1@michigan.gov>; Beurer, Terrence (DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy (DEQ)  
<epkeya@michigan.gov>; McDonald, Paul (DEQ)  
<mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, GERALYN (DHHS) <lasherG@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM

**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB);

Stephen, Kimberly (DHHS); Kangas, Susan (DHHS);  
Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher,  
Geraldyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice  
(DHHS); Carey, Marilyn (DHHS); Becker, Timothy  
(DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ);  
McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community  
action agency in genesee county to confirm the  
willingness/capability for the second action item Farah  
detailed.

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB);  
Sanches, Christine (DHHS); Maynard, Sharon (DTMB);  
Fortino, Diane (DTMB); Stephen, Kimberly (DHHS);  
Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg,  
Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher,  
Geraldyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice  
(DHHS); Carey, Marilyn (DHHS); Becker, Timothy  
(DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ);  
McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who  
I understand is helping out with the Flint Water issue to  
this email so we can all be on the same page. Please  
forward this email to anyone you believe needs to be in  
the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be  
distributed at local county offices for DHHS  
clients only. DHHS Purchasing is going to reach  
out to DTMB to help us make copies of water  
marked, colored and other authentic detailed  
documents to get out to local offices as soon as  
possible. We will figure out costs and DTMB  
charges to DHHS later.
  - a. Latest change : From a  
budget/accounting perspective, we will  
not receive \$1 million from DEQ for this  
purpose. The \$1 million from DEQ will  
be for item #2. Instead, for this  
purpose, funding will come from a work  
project that our budget office will  
advance to SBO. Our budget office is  
working on that now.

2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

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**From:** Beurer, Terrence (DHHS)  
**Sent:** Friday, October 02, 2015 1:43 PM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Sanches, Christine (DHHS); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Rigg, Steve (DTMB); Becker, Timothy (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS)  
**Subject:** RE: Flint Water Update

Based on the previous e-mail, under the counter filter must be included in the voucher with the same specs.

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:41 PM  
**To:** Beurer, Terrence (DHHS) <BeurerT@michigan.gov>  
**Cc:** Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Lasher, Geralyn (DHHS) <lasergh@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>  
**Subject:** Re: Flint Water Update

Terry-Just to be clear-if we approve this voucher-once the decision is made to move forward on it- it is for water faucets only.

Sent from my iPhone

On Oct 2, 2015, at 1:38 PM, Beurer, Terrence (DHHS) <BeurerT@michigan.gov> wrote:

We have reviewed and approve.

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 2, 2015 1:33 PM  
**To:** Hanley, Farah (DHHS) <hanleyf@michigan.gov>  
**Cc:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Lasher, Geralyn (DHHS) <lasergh@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri

(DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Subject:** RE: Flint Water Update

Latest version of voucher is attached.

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:15 PM

**To:** Rigg, Steve (DTMB) <RiggS@michigan.gov>

**Cc:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS)

<SanchesC@michigan.gov>; Lasher, GERALYN (DHHS) <laserger@michigan.gov>; Cooley, Tom (DTMB)

<cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB)

<BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane

(DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas,

Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri

(DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn

(DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence

(DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ)

<mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS)

<MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris

(DHHS) <SchoenowK@michigan.gov>

**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <RiggS@michigan.gov> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
  - b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
  - c. Specs for Brita faucet filter is attached.
  - d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each



Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja -- cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn -- cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026  
Lansing, MI 48933  
(517) 284-7043 (phone)  
(517) 335-0046 (fax)  
1-855-647-8724 (toll free customer service)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 11:46 AM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>  
**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 02, 2015 11:42 AM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula

(DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)

**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 11:35 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:33 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)  
**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS)  
<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, GERALYN (DHHS)  
**Sent:** Friday, October 2, 2015 10:27 AM  
**To:** Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update

Still talking to Meljer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)  
**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>;  
Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>;  
Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>;  
Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>;  
Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>;  
Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>;  
Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>;  
Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>;  
Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>;  
Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg,  
Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn  
(DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS)  
<[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS)  
<[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS)  
<[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS)  
<[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS)  
<[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ)  
<[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ)  
<[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>;  
Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>;  
Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>;  
Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>;  
Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>;  
Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>;  
Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>;  
Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>;  
Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg,  
Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn  
(DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS)  
<[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS)  
<[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS)  
<[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS)  
<[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS)  
<[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ)  
<[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ)  
<[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Cooley, Tom (DTMB)

<cooleytm@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher ---  
Please send all what the latest looks like.

No vouchers will be printed yet until we get  
confirmation from the DHHS front office.

---

**From:** Cook, Rebecca (DTMB)

**Sent:** Friday, October 02, 2015 10:21 AM

**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS);  
Brownlee, Jeff (DTMB); Sanches, Christine (DHHS);  
Maynard, Sharon (DTMB); Fortino, Diane (DTMB);  
Stephen, Kimberly (DHHS); Kangas, Susan (DHHS);  
Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher,  
Geraldyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice  
(DHHS); Carey, Marilyn (DHHS); Becker, Timothy  
(DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ);  
McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher  
(NSF Certified, ANSI 53 compliant), to aid stores in  
providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>;  
Cook, Rebecca (DTMB) <CookR6@michigan.gov>;  
Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>;  
Sanches, Christine (DHHS) <SanchesC@michigan.gov>;  
Maynard, Sharon (DTMB) <maynards1@michigan.gov>;  
Fortino, Diane (DTMB) <FortinoD@michigan.gov>;  
Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>;  
Kangas, Susan (DHHS) <KangasS1@michigan.gov>;  
Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg,  
Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geraldyn  
(DHHS) <lasherG@michigan.gov>; Scott, Teri (DHHS)  
<ScottT13@michigan.gov>; Gillette, Patrice (DHHS)  
<GilletteP@michigan.gov>; Carey, Marilyn (DHHS)

<careym@michigan.gov>; Becker, Timothy (DHHS)  
<beckert1@michigan.gov>; Beurer, Terrence (DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy (DEQ)  
<epkeya@michigan.gov>; McDonald, Paul (DEQ)  
<mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:03 AM  
**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:01 AM  
**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** Flint Water Update  
**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>



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**From:** Schoenow, Kris (DHHS)  
**Sent:** Friday, October 02, 2015 1:52 PM  
**To:** Hanley, Farah (DHHS); Rigg, Steve (DTMB)  
**Cc:** Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** RE: Flint Water Update

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
schoenowk@michigan.gov

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:15 PM  
**To:** Rigg, Steve (DTMB) <RiggS@michigan.gov>  
**Cc:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Lasher, GERALYN (DHHS) <lasherg@michigan.gov>; Cooley, Tom (DTMB) <cooleyT@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>  
**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
- b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
- c. Specs for Brita faucet filter is attached.
- d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja -- cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn -- cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 02, 2015 11:42 AM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)  
**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached – format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 11:35 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:33 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)  
**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, GERALYN (DHHS)  
**Sent:** Friday, October 2, 2015 10:27 AM  
**To:** Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyF@michigan.gov](mailto:hanleyF@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeyA@michigan.gov](mailto:epkeyA@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldP@michigan.gov](mailto:mcdonaldP@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)  
**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS) <hanleyf@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, GERALYN (DHHS) <lasergh@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, GERALYN (DHHS) <lasergh@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyT@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher -- Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, GERALYN (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, GERALYN (DHHS) <lasergh@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:03 AM  
**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:01 AM  
**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** Flint Water Update  
**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water



filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth -- Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

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**From:** Schoenow, Kris (DHHS)  
**Sent:** Friday, October 02, 2015 1:56 PM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** RE: Flint Water Update

thanks

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
schoenowk@michigan.gov

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:54 PM  
**To:** Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>  
**Cc:** Rigg, Steve (DTMB) <RiggS@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>  
**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:15 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
  - b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
  - c. Specs for Brita faucet filter is attached.
  - d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja -- cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn -- cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 02, 2015 11:42 AM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)  
**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached – format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 11:35 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a **GO** on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS)

<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, GERALYN (DHHS)

**Sent:** Friday, October 2, 2015 10:27 AM

**To:** Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB)

<RiggS@michigan.gov>; Scott, Teri (DHHS)  
<ScottT13@michigan.gov>; Gillette, Patrice (DHHS)  
<GilletteP@michigan.gov>; Carey, Marilyn (DHHS)  
<careym@michigan.gov>; Becker, Timothy (DHHS)  
<beckert1@michigan.gov>; Beurer, Terrence (DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy (DEQ)  
<epkeya@michigan.gov>; McDonald, Paul (DEQ)  
<mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)

**Sent:** Friday, October 02, 2015 10:26 AM

**To:** Hanley, Farah (DHHS) <hanleyf@michigan.gov>;  
Cook, Rebecca (DTMB) <CookR6@michigan.gov>;  
Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>;  
Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>;  
Sanches, Christine (DHHS) <SanchesC@michigan.gov>;  
Maynard, Sharon (DTMB) <maynards1@michigan.gov>;  
Fortino, Diane (DTMB) <FortinoD@michigan.gov>;  
Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>;  
Kangas, Susan (DHHS) <KangasS1@michigan.gov>;  
Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg,  
Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn  
(DHHS) <lasherg@michigan.gov>; Scott, Teri (DHHS)  
<ScottT13@michigan.gov>; Gillette, Patrice (DHHS)  
<GilletteP@michigan.gov>; Carey, Marilyn (DHHS)  
<careym@michigan.gov>; Becker, Timothy (DHHS)  
<beckert1@michigan.gov>; Beurer, Terrence (DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy (DEQ)  
<epkeya@michigan.gov>; McDonald, Paul (DEQ)  
<mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:24 AM

**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>;  
Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>;  
Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>;  
Sanches, Christine (DHHS) <SanchesC@michigan.gov>;  
Maynard, Sharon (DTMB) <maynards1@michigan.gov>;



Fortino, Diane (DTMB) <FortinoD@michigan.gov>;  
Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>;  
Kangas, Susan (DHHS) <KangasS1@michigan.gov>;  
Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg,  
Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn  
(DHHS) <laserhg@michigan.gov>; Scott, Teri (DHHS)  
<ScottT13@michigan.gov>; Gillette, Patrice (DHHS)  
<GilletteP@michigan.gov>; Carey, Marilyn (DHHS)  
<careym@michigan.gov>; Becker, Timothy (DHHS)  
<beckert1@michigan.gov>; Beurer, Terrence (DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy (DEQ)  
<epkeya@michigan.gov>; McDonald, Paul (DEQ)  
<mcdonaldp@michigan.gov>; Cooley, Tom (DTMB)  
<cooleyT@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Yes! Sounds like Chris made this suggestion already to  
Tom and we're going to do that. Adding Tom to the  
conversation.

Tom / Chris or whomever is updating the voucher --  
Please send all what the latest looks like.

No vouchers will be printed yet until we get  
confirmation from the DHHS front office.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS);  
Brownlee, Jeff (DTMB); Sanches, Christine (DHHS);  
Maynard, Sharon (DTMB); Fortino, Diane (DTMB);  
Stephen, Kimberly (DHHS); Kangas, Susan (DHHS);  
Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher,  
Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice  
(DHHS); Carey, Marilyn (DHHS); Becker, Timothy  
(DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ);  
McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher  
(NSF Certified, ANSI 53 compliant), to aid stores in  
providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>;  
Cook, Rebecca (DTMB) <CookR6@michigan.gov>;  
Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>;  
Sanches, Christine (DHHS) <SanchesC@michigan.gov>;  
Maynard, Sharon (DTMB) <maynards1@michigan.gov>;  
Fortino, Diane (DTMB) <FortinoD@michigan.gov>;  
Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>;  
Kangas, Susan (DHHS) <KangasS1@michigan.gov>;  
Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg,  
Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn  
(DHHS) <laserger@michigan.gov>; Scott, Teri (DHHS)  
<ScottT13@michigan.gov>; Gillette, Patrice (DHHS)  
<GilletteP@michigan.gov>; Carey, Marilyn (DHHS)  
<careym@michigan.gov>; Becker, Timothy (DHHS)  
<beckert1@michigan.gov>; Beurer, Terrence (DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy (DEQ)  
<epkeya@michigan.gov>; McDonald, Paul (DEQ)  
<mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB);  
Brownlee, Jeff (DTMB); Sanches, Christine (DHHS);  
Maynard, Sharon (DTMB); Fortino, Diane (DTMB);  
Stephen, Kimberly (DHHS); Kangas, Susan (DHHS);  
Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher,  
Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice  
(DHHS); Carey, Marilyn (DHHS); Becker, Timothy  
(DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ);  
McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community  
action agency in genesee county to confirm the  
willingness/capability for the second action item Farah  
detailed.

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB);  
Sanches, Christine (DHHS); Maynard, Sharon (DTMB);  
Fortino, Diane (DTMB); Stephen, Kimberly (DHHS);  
Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg,  
Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher,  
Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice  
(DHHS); Carey, Marilyn (DHHS); Becker, Timothy

(DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ);  
McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** Flint Water Update  
**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

---

**From:** Schoenow, Kris (DHHS)  
**Sent:** Friday, October 02, 2015 2:14 PM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** RE: Flint Water Update - Address for delivery and contact person listed in email

Please let me know what filters will be purchased. We would like to setup a demonstration sink to teach people how to install the water filters. We are also thinking about doing a YouTube video as well.

The following address has a loading dock for delivery of the water filters to GCCARD:

Genesee County Community Action Resource Department (GCCARD)  
2727 Lippincott Blvd.  
Flint, MI 48507

Local Contact Person at GCCARD:

Matthew Purcell  
(810) 762-4922  
[mpurcell@co.genesee.mi.us](mailto:mpurcell@co.genesee.mi.us)

Thanks,  
Kris

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

---

**From:** Schoenow, Kris (DHHS)  
**Sent:** Friday, October 2, 2015 1:56 PM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <RiggS@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Lasher, GERALYN (DHHS) <lasherg@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>

**Subject:** RE: Flint Water Update

thanks

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871

517-373-8896

[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:54 PM

**To:** Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Cc:** Rigg, Steve (DTMB) <RiggS@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Lasher, GERALYN (DHHS) <lasherg@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>

**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:15 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
  - b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
  - c. Specs for Brita faucet filter is attached.
  - d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

- 3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja -- cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn -- cell number 313-701-5454

Chris Sanches

- 4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.



Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division  
DTMB/Procurement  
Constitution Hall, First Floor NE  
525 W. Allegan Street  
P. O. Box 30026  
Lansing, MI 48933  
(517) 284-7043 (phone)  
(517) 335-0046 (fax)  
1-855-647-8724 (toll free customer service)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 11:46 AM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>  
**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 02, 2015 11:42 AM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)  
**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 11:35 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a **GO** on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:33 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)  
**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS)  
<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, GERALYN (DHHS)  
**Sent:** Friday, October 2, 2015 10:27 AM  
**To:** Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS)

<careym@michigan.gov>; Becker, Timothy (DHHS)  
<beckert1@michigan.gov>; Beurer, Terrence (DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy (DEQ)  
<epkeya@michigan.gov>; McDonald, Paul (DEQ)  
<mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)  
**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS) <hanleyf@michigan.gov>;  
Cook, Rebecca (DTMB) <CookR6@michigan.gov>;  
Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>;  
Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>;  
Sanches, Christine (DHHS) <SanchesC@michigan.gov>;  
Maynard, Sharon (DTMB) <maynards1@michigan.gov>;  
Fortino, Diane (DTMB) <FortinoD@michigan.gov>;  
Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>;  
Kangas, Susan (DHHS) <KangasS1@michigan.gov>;  
Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg,  
Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn  
(DHHS) <lasherG@michigan.gov>; Scott, Teri (DHHS)  
<ScottT13@michigan.gov>; Gillette, Patrice (DHHS)  
<GilletteP@michigan.gov>; Carey, Marilyn (DHHS)  
<careym@michigan.gov>; Becker, Timothy (DHHS)  
<beckert1@michigan.gov>; Beurer, Terrence (DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy (DEQ)  
<epkeya@michigan.gov>; McDonald, Paul (DEQ)  
<mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>;  
Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>;  
Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>;  
Sanches, Christine (DHHS) <SanchesC@michigan.gov>;  
Maynard, Sharon (DTMB) <maynards1@michigan.gov>;  
Fortino, Diane (DTMB) <FortinoD@michigan.gov>;  
Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>;  
Kangas, Susan (DHHS) <KangasS1@michigan.gov>;

Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, GERALYN (DHHS) <lasergh@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleytm@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher -- Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, GERALYN (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>;

Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>;  
Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>;  
Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>;  
Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>;  
Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>;  
Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg,  
Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn  
(DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS)  
<[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS)  
<[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS)  
<[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS)  
<[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS)  
<[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ)  
<[epkeva@michigan.gov](mailto:epkeva@michigan.gov)>; McDonald, Paul (DEQ)  
<[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB);  
Brownlee, Jeff (DTMB); Sanches, Christine (DHHS);  
Maynard, Sharon (DTMB); Fortino, Diane (DTMB);  
Stephen, Kimberly (DHHS); Kangas, Susan (DHHS);  
Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher,  
Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice  
(DHHS); Carey, Marilyn (DHHS); Becker, Timothy  
(DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ);  
McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes -- we are currently reaching out to the community  
action agency in genesee county to confirm the  
willingness/capability for the second action item Farah  
detailed.

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB);  
Sanches, Christine (DHHS); Maynard, Sharon (DTMB);  
Fortino, Diane (DTMB); Stephen, Kimberly (DHHS);  
Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg,  
Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher,  
Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice  
(DHHS); Carey, Marilyn (DHHS); Becker, Timothy  
(DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ);  
McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject: Flint Water Update**

**Importance: High**

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

---

**From:** Schoenow, Kris (DHHS)  
**Sent:** Friday, October 02, 2015 2:14 PM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** RE: Flint Water Update

okay

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
schoenowk@michigan.gov

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 2:09 PM  
**To:** Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>  
**Cc:** Rigg, Steve (DTMB) <RiggS@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>  
**Subject:** Re: Flint Water Update

We appreciate everyone staying so patient as we make this happen and recognize that this is an evolving issue.

To that point we will now be issuing over and under counter filters (assuming most people will pursue the over counter faucet filters). Let's pursue 2/3 of the 5,000 for over counter and 1/3 of the 5,000 for under counter filter.

Sent from my iPhone



On Oct 2, 2015, at 1:56 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

thanks

Kris Schoenow  
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Lansing, MI 48909

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---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:54 PM  
**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow  
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Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
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Lansing, MI 48909

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517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:15 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
- b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.

- c. Specs for Brita faucet filter is attached.
  - d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
- a. The main contact person for Home Depot is David Khanuja -- cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn -- cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division  
DTMB/Procurement  
Constitution Hall, First Floor NE  
525 W. Allegan Street  
P. O. Box 30026  
Lansing, MI 48933  
(517) 284-7043 (phone)  
(517) 335-0046 (fax)  
1-855-647-8724 (toll free customer service)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 11:46 AM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>  
**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS)  
<[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom – it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 02, 2015 11:42 AM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)  
**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 11:35 AM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB)

<RiggS@michigan.gov>; Scott, Teri (DHHS)  
<ScottT13@michigan.gov>; Gillette, Patrice (DHHS)  
<GilletteP@michigan.gov>; Carey, Marilyn (DHHS)  
<careym@michigan.gov>; Becker, Timothy (DHHS)  
<beckert1@michigan.gov>; Beurer, Terrence (DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy (DEQ)  
<epkeya@michigan.gov>; McDonald, Paul (DEQ)  
<mcdonaldp@michigan.gov>; Ray, Patricia (DHHS)  
<RayP2@michigan.gov>; Moran, Susan (DHHS)  
<MoranS@michigan.gov>; Kaiser Van Dam, Paula  
(DHHS) <KaiserP@michigan.gov>; Schoenow, Kris  
(DHHS) <SchoenowK@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

**Update**

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS)  
<SanchesC@michigan.gov> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, GERALYN (DHHS)  
**Sent:** Friday, October 2, 2015 10:27 AM  
**To:** Cooley, Tom (DTMB)  
<[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

---

**From:** Cooley, Tom (DTMB)  
**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS)  
<[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB)  
<[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS)  
<[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB)  
<[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS)  
<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB)  
<[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB)  
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<[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS)  
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<[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS)  
<[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS)  
<[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ)  
<[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS)  
<[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB)



<CookR6@michigan.gov>; Hertel,  
Elizabeth (DHHS)  
<HertelE@michigan.gov>; Brownlee,  
Jeff (DTMB)  
<BrownleeJ@michigan.gov>; Sanches,  
Christine (DHHS)  
<SanchesC@michigan.gov>; Maynard,  
Sharon (DTMB)  
<maynards1@michigan.gov>; Fortino,  
Diane (DTMB)  
<FortinoD@michigan.gov>; Stephen,  
Kimberly (DHHS)  
<STEPHENK@michigan.gov>; Kangas,  
Susan (DHHS)  
<KangasS1@michigan.gov>; Smith, Terri  
(DHHS) <SmithT42@michigan.gov>;  
Rigg, Steve (DTMB)  
<RiggS@michigan.gov>; Lasher, GERALYN  
(DHHS) <lasherg@michigan.gov>; Scott,  
Teri (DHHS) <ScottT13@michigan.gov>;  
Gillette, Patrice (DHHS)  
<GilletteP@michigan.gov>; Carey,  
Marilyn (DHHS)  
<careym@michigan.gov>; Becker,  
Timothy (DHHS)  
<beckert1@michigan.gov>; Beurer,  
Terrence (DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy  
(DEQ) <epkeya@michigan.gov>;  
McDonald, Paul (DEQ)  
<mcdonaldp@michigan.gov>; Cooley,  
Tom (DTMB) <cooleyt@michigan.gov>  
**Cc:** Ray, Patricia (DHHS)  
<RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Yes! Sounds like Chris made this  
suggestion already to Tom and we're  
going to do that. Adding Tom to the  
conversation.

Tom / Chris or whomever is updating  
the voucher – Please send all what the  
latest looks like.

No vouchers will be printed yet until we  
get confirmation from the DHHS front  
office.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS)  
<[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Cook, Rebecca (DTMB)  
<[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB)  
<[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS)  
<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB)  
<[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB)  
<[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS)  
<[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS)  
<[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB)  
<[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS)  
<[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey,

Marilyn (DHHS)  
<careym@michigan.gov>; Becker,  
Timothy (DHHS)  
<beckert1@michigan.gov>; Beurer,  
Terrence (DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy  
(DEQ) <epkeya@michigan.gov>;  
McDonald, Paul (DEQ)  
<mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS)  
<RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:03 AM  
**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Yes -- we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:01 AM  
**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS);

Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee

county to distribute. This will  
be paid for with the \$1 million  
DHHS will receive from DEQ.

This is the plan for now. Elizabeth --  
Please confirm have this right.

Everyone is encouraged to ask  
questions. Sorry for including so many  
people but the left hand needs to know  
what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-  
09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

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**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 3:18 PM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Hanley, Farah (DHHS); Rigg, Steve (DTMB); Schoenow, Kris (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** Re: Flint Water Update

I think we are good with Monday.

Sent from my iPhone

On Oct 2, 2015, at 3:16 PM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Home Depot can deliver to GCCARD Sunday, if someone is there to accept the delivery; otherwise Monday.

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 2:38 PM  
**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** Re: Flint Water Update

DHHS just signed the purchase order for the 5,000 filters. We are moving on this now.

DTMB- when can we say that Home Depot or Grainger will be delivering the filters?

Sent from my iPhone

On Oct 2, 2015, at 2:09 PM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

We appreciate everyone staying so patient as we make this happen and recognize that this is an evolving issue.

To that point we will now be issuing over and under counter filters (assuming most people will pursue the over counter faucet filters). Let's pursue 2/3 of the 5,000 for over counter and 1/3 of the 5,000 for under counter filter.

Sent from my iPhone

On Oct 2, 2015, at 1:56 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

thanks

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:54 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow

Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:15 PM

**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
- b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
- c. Specs for Brita faucet filter is attached.



- d. Specs for the Pentair under the counter filters are attached.
- 2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

- 3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

- 3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja – cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn – cell number 313-701-5454

Chris Sanches

- 4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

## *Steve Rigg*

Buyer, Commodities Division  
DTMB/Procurement  
Constitution Hall, First Floor NE  
525 W. Allegan Street  
P. O. Box 30026  
Lansing, MI 48933  
(517) 284-7043 (phone)  
(517) 335-0046 (fax)  
1-855-647-8724 (toll free customer service)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

**From:** Sanches, Christine (DHHS)

**Sent:** Friday, October 02, 2015 11:42 AM

**To:** Hanley, Farah (DHHS)

**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula

(DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)

**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 11:35 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[coolevt@michigan.gov](mailto:coolevt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

**From:** Lasher, GERALYN (DHHS)

**Sent:** Friday, October 2, 2015 10:27 AM

**To:** Cooley, Tom (DTMB) <[cooley\\_t@michigan.gov](mailto:cooley_t@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

**From:** Cooley, Tom (DTMB)

**Sent:** Friday, October 02, 2015 10:26 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:24 AM

**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS)

<lsherg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

**From:** Cook, Rebecca (DTMB)

**Sent:** Friday, October 02, 2015 10:21 AM

**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lsherg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

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**From:** Becker, Timothy (DHHS)  
**Sent:** Friday, October 02, 2015 3:22 PM  
**To:** Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Sederburg, Kari (DHHS)  
**Cc:** Hanley, Farah (DHHS); Rigg, Steve (DTMB); Schoenow, Kris (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** RE: Flint Water Update

I want the local area agency on aging to also have access to the filters to be distributed to the elderly through meals on wheels volunteers. I've copied Kari Sederburg to this message. Should she go through the CAA to ensure this access for the area agency on aging?

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 2, 2015 3:18 PM  
**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** Re: Flint Water Update

I think we are good with Monday.

Sent from my iPhone

On Oct 2, 2015, at 3:16 PM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Home Depot can deliver to GCCARD Sunday, if someone is there to accept the delivery; otherwise Monday.

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 2:38 PM  
**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS)

<careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>

**Subject:** Re: Flint Water Update

DHHS just signed the purchase order for the 5,000 filters. We are moving on this now.

DTMB- when can we say that Home Depot or Grainger will be delivering the filters?

Sent from my iPhone

On Oct 2, 2015, at 2:09 PM, Hanley, Farah (DHHS) <hanleyf@michigan.gov> wrote:

We appreciate everyone staying so patient as we make this happen and recognize that this is an evolving issue.

To that point we will now be issuing over and under counter filters (assuming most people will pursue the over counter faucet filters). Let's pursue 2/3 of the 5,000 for over counter and 1/3 of the 5,000 for under counter filter.

Sent from my iPhone

On Oct 2, 2015, at 1:56 PM, Schoenow, Kris (DHHS) <SchoenowK@michigan.gov> wrote:

thanks

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871

517-373-8896

[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:54 PM

**To:** Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Cc:** Rigg, Steve (DTMB) <RiggS@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Lasher, Geralyn (DHHS) <lasherG@michigan.gov>; Cooley, Tom (DTMB) <cooleyT@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS)



<ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>

**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS) <SchoenowK@michigan.gov> wrote:

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:15 PM

**To:** Rigg, Steve (DTMB) <RiggS@michigan.gov>

**Cc:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Lasher, Geralyn (DHHS) <lasherG@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
  - b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
  - c. Specs for Brita faucet filter is attached.
  - d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja – cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn – cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom – it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

**From:** Sanches, Christine (DHHS)

**Sent:** Friday, October 02, 2015 11:42 AM

**To:** Hanley, Farah (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)

**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached – format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 11:35 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[Rigg5@michigan.gov](mailto:Rigg5@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.

2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:33 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)  
**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

**From:** Lasher, GERALYN (DHHS)  
**Sent:** Friday, October 2, 2015 10:27 AM  
**To:** Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

**From:** Cooley, Tom (DTMB)  
**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS)

<GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasherG@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasherG@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes -- we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.

- a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth -- Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>



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**From:** Beurer, Terrence (DHHS)  
**Sent:** Friday, October 02, 2015 3:26 PM  
**To:** Becker, Timothy (DHHS); Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Sederburg, Kari (DHHS)  
**Cc:** Hanley, Farah (DHHS); Rigg, Steve (DTMB); Schoenow, Kris (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** RE: Flint Water Update

Kathy Boles is the CEO at Valley Area on Aging

**From:** Becker, Timothy (DHHS)  
**Sent:** Friday, October 2, 2015 3:22 PM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Sederburg, Kari (DHHS) <[SederburgK@michigan.gov](mailto:SederburgK@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** RE: Flint Water Update

I want the local area agency on aging to also have access to the filters to be distributed to the elderly through meals on wheels volunteers. I've copied Kari Sederburg to this message. Should she go through the CAA to ensure this access for the area agency on aging?

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 2, 2015 3:18 PM  
**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ)

<mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>

**Subject:** Re: Flint Water Update

I think we are good with Monday.

Sent from my iPhone

On Oct 2, 2015, at 3:16 PM, Sanches, Christine (DHHS) <SanchesC@michigan.gov> wrote:

Home Depot can deliver to GCCARD Sunday, if someone is there to accept the delivery; otherwise Monday.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 2:38 PM

**To:** Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Cc:** Rigg, Steve (DTMB) <RiggS@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Lasher, Geralyn (DHHS) <lasherG@michigan.gov>; Cooley, Tom (DTMB) <cooleyT@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>

**Subject:** Re: Flint Water Update

DHHS just signed the purchase order for the 5,000 filters. We are moving on this now.

DTMB- when can we say that Home Depot or Grainger will be delivering the filters?

Sent from my iPhone

On Oct 2, 2015, at 2:09 PM, Hanley, Farah (DHHS) <hanleyf@michigan.gov> wrote:

We appreciate everyone staying so patient as we make this happen and recognize that this is an evolving issue.

To that point we will now be issuing over and under counter filters (assuming most people will pursue the over counter faucet filters). Let's pursue 2/3 of the 5,000 for over counter and 1/3 of the 5,000 for under counter filter.

Sent from my iPhone

On Oct 2, 2015, at 1:56 PM, Schoenow, Kris (DHHS) <SchoenowK@michigan.gov> wrote:

thanks

Kris Schoenow

Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:54 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896

[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:15 PM

**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
  - b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
  - c. Specs for Brita faucet filter is attached.
  - d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?

- a. The main contact person for Home Depot is David Khanuja – cell number 248-826-8907
- b. The main contact person for Grainger is Brent Zinn – cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

**From:** Sanches, Christine (DHHS)

**Sent:** Friday, October 02, 2015 11:42 AM

**To:** Hanley, Farah (DHHS)

**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)

**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 11:35 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB)

<maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <SanchesC@michigan.gov> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

**From:** Lasher, GERALYN (DHHS)

**Sent:** Friday, October 2, 2015 10:27 AM

**To:** Cooley, Tom (DTMB) <cooleytm@michigan.gov>; Hanley, Farah (DHHS) <hanleyf@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS)

<STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

**From:** Cooley, Tom (DTMB)  
**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS) <hanleyf@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, GERALYN (DHHS) <laserhg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, GERALYN (DHHS) <laserhg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher -- Please send all what the latest looks like.



No vouchers will be printed yet until we get confirmation from the DHHS front office.

**From:** Cook, Rebecca (DTMB)

**Sent:** Friday, October 02, 2015 10:21 AM

**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes -- we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane

(DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, GERALYN (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

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**From:** Becker, Timothy (DHHS)  
**Sent:** Friday, October 02, 2015 3:27 PM  
**To:** Beurer, Terrence (DHHS); Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Sederburg, Kari (DHHS)  
**Cc:** Hanley, Farah (DHHS); Rigg, Steve (DTMB); Schoenow, Kris (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** RE: Flint Water Update

Kari and Kathy have talked. Kathy stands ready to help. We just need to connect her.

**From:** Beurer, Terrence (DHHS)  
**Sent:** Friday, October 2, 2015 3:26 PM  
**To:** Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Sederburg, Kari (DHHS) <[SederburgK@michigan.gov](mailto:SederburgK@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** RE: Flint Water Update

Kathy Boles is the CEO at Valley Area on Aging

**From:** Becker, Timothy (DHHS)  
**Sent:** Friday, October 2, 2015 3:22 PM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Sederburg, Kari (DHHS) <[SederburgK@michigan.gov](mailto:SederburgK@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** RE: Flint Water Update

I want the local area agency on aging to also have access to the filters to be distributed to the elderly through meals on wheels volunteers. I've copied Kari Sederburg to this message. Should she go through the CAA to ensure this access for the area agency on aging?

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 2, 2015 3:18 PM

**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

I think we are good with Monday.

Sent from my iPhone

On Oct 2, 2015, at 3:16 PM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Home Depot can deliver to GCCARD Sunday, if someone is there to accept the delivery; otherwise Monday.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 2:38 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

DHHS just signed the purchase order for the 5,000 filters. We are moving on this now.

DTMB- when can we say that Home Depot or Grainger will be delivering the filters?

Sent from my iPhone

On Oct 2, 2015, at 2:09 PM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

We appreciate everyone staying so patient as we make this happen and recognize that this is an evolving issue.

To that point we will now be issuing over and under counter filters (assuming most people will pursue the over counter faucet filters). Let's pursue 2/3 of the 5,000 for over counter and 1/3 of the 5,000 for under counter filter.

Sent from my iPhone

On Oct 2, 2015, at 1:56 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

thanks

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871

517-373-8896

[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:54 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
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517-241-4871

517-373-8896

[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:15 PM

**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
  - b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
  - c. Specs for Brita faucet filter is attached.
  - d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja – cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn – cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division  
DTMB/Procurement  
Constitution Hall, First Floor NE  
525 W. Allegan Street  
P. O. Box 30026  
Lansing, MI 48933  
(517) 284-7043 (phone)  
(517) 335-0046 (fax)  
1-855-647-8724 (toll free customer service)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[coolevt@michigan.gov](mailto:coolevt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

**From:** Sanches, Christine (DHHS)

**Sent:** Friday, October 02, 2015 11:42 AM



**To:** Hanley, Farah (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)

**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached --- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 11:35 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

**From:** Lasher, GERALYN (DHHS)

**Sent:** Friday, October 2, 2015 10:27 AM

**To:** Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

**From:** Cooley, Tom (DTMB)

**Sent:** Friday, October 02, 2015 10:26 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:24 AM

**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <laserhg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

**From:** Cook, Rebecca (DTMB)

**Sent:** Friday, October 02, 2015 10:21 AM

**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <laserhg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

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**From:** Beurer, Terrence (DHHS)  
**Sent:** Friday, October 02, 2015 3:29 PM  
**To:** Becker, Timothy (DHHS); Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Sederburg, Kari (DHHS)  
**Cc:** Hanley, Farah (DHHS); Rigg, Steve (DTMB); Schoenow, Kris (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Thompson, Sheryl D. (DHHS)  
**Subject:** RE: Flint Water Update

It would be best to connect them to the CAA.

**From:** Becker, Timothy (DHHS)  
**Sent:** Friday, October 2, 2015 3:27 PM  
**To:** Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Sederburg, Kari (DHHS) <[SederburgK@michigan.gov](mailto:SederburgK@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** RE: Flint Water Update

Kari and Kathy have talked. Kathy stands ready to help. We just need to connect her.

**From:** Beurer, Terrence (DHHS)  
**Sent:** Friday, October 2, 2015 3:26 PM  
**To:** Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Sederburg, Kari (DHHS) <[SederburgK@michigan.gov](mailto:SederburgK@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** RE: Flint Water Update

Kathy Boles is the CEO at Valley Area on Aging

**From:** Becker, Timothy (DHHS)  
**Sent:** Friday, October 2, 2015 3:22 PM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Sederburg, Kari (DHHS) <[SederburgK@michigan.gov](mailto:SederburgK@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** RE: Flint Water Update

I want the local area agency on aging to also have access to the filters to be distributed to the elderly through meals on wheels volunteers. I've copied Kari Sederburg to this message. Should she go through the CAA to ensure this access for the area agency on aging?

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 2, 2015 3:18 PM  
**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** Re: Flint Water Update

I think we are good with Monday.

Sent from my iPhone

On Oct 2, 2015, at 3:16 PM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Home Depot can deliver to GCCARD Sunday, if someone is there to accept the delivery; otherwise Monday.

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 2:38 PM  
**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB)

<cooleytm@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>

**Subject:** Re: Flint Water Update

DHHS just signed the purchase order for the 5,000 filters. We are moving on this now.

DTMB- when can we say that Home Depot or Grainger will be delivering the filters?

Sent from my iPhone

On Oct 2, 2015, at 2:09 PM, Hanley, Farah (DHHS) <hanleyf@michigan.gov> wrote:

We appreciate everyone staying so patient as we make this happen and recognize that this is an evolving issue.

To that point we will now be issuing over and under counter filters (assuming most people will pursue the over counter faucet filters). Let's pursue 2/3 of the 5,000 for over counter and 1/3 of the 5,000 for under counter filter.

Sent from my iPhone

On Oct 2, 2015, at 1:56 PM, Schoenow, Kris (DHHS) <SchoenowK@michigan.gov> wrote:

thanks

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:54 PM

**To:** Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Cc:** Rigg, Steve (DTMB) <RiggS@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine



(DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:15 PM

**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS)

<KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <RiggS@michigan.gov> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
- b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
- c. Specs for Brita faucet filter is attached.
- d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja -- cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn -- cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom – it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

**From:** Sanches, Christine (DHHS)

**Sent:** Friday, October 02, 2015 11:42 AM

**To:** Hanley, Farah (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)

**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached – format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 11:35 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.

2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:33 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)  
**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

**From:** Lasher, GERALYN (DHHS)  
**Sent:** Friday, October 2, 2015 10:27 AM  
**To:** Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>  
**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>  
**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

**From:** Cooley, Tom (DTMB)  
**Sent:** Friday, October 02, 2015 10:26 AM  
**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS)

<GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasherG@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyT@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasherG@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes -- we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.

- a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth -- Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>



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**From:** Schoenow, Kris (DHHS)  
**Sent:** Friday, October 02, 2015 3:30 PM  
**To:** Becker, Timothy (DHHS); Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Sederburg, Kari (DHHS)  
**Cc:** Hanley, Farah (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** RE: Flint Water Update

Yes – GCCARD planned on talking with them. I will let them know it is a priority.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Becker, Timothy (DHHS)  
**Sent:** Friday, October 2, 2015 3:22 PM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Sederburg, Kari (DHHS) <[SederburgK@michigan.gov](mailto:SederburgK@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** RE: Flint Water Update

I want the local area agency on aging to also have access to the filters to be distributed to the elderly through meals on wheels volunteers. I've copied Kari Sederburg to this message. Should she go through the CAA to ensure this access for the area agency on aging?

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 2, 2015 3:18 PM

**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

I think we are good with Monday.

Sent from my iPhone

On Oct 2, 2015, at 3:16 PM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Home Depot can deliver to GCCARD Sunday, if someone is there to accept the delivery; otherwise Monday.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 2:38 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

DHHS just signed the purchase order for the 5,000 filters. We are moving on this now.

DTMB- when can we say that Home Depot or Grainger will be delivering the filters?

Sent from my iPhone

On Oct 2, 2015, at 2:09 PM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

We appreciate everyone staying so patient as we make this happen and recognize that this is an evolving issue.

To that point we will now be issuing over and under counter filters (assuming most people will pursue the over counter faucet filters). Let's pursue 2/3 of the 5,000 for over counter and 1/3 of the 5,000 for under counter filter.

Sent from my iPhone

On Oct 2, 2015, at 1:56 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

thanks

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871

517-373-8896

[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:54 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:15 PM

**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.

- b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
  - c. Specs for Brita faucet filter is attached.
  - d. Specs for the Pentair under the counter filters are attached.
- 2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

- 3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

- 3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja – cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn – cell number 313-701-5454

Chris Sanches

- 4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

## *Steve Rigg*

Buyer, Commodities Division  
DTMB/Procurement  
Constitution Hall, First Floor NE  
525 W. Allegan Street  
P. O. Box 30026  
Lansing, MI 48933  
(517) 284-7043 (phone)  
(517) 335-0046 (fax)  
1-855-647-8724 (toll free customer service)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

**From:** Sanches, Christine (DHHS)

**Sent:** Friday, October 02, 2015 11:42 AM

**To:** Hanley, Farah (DHHS)

**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula

(DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)

**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 11:35 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[coolevt@michigan.gov](mailto:coolevt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

**From:** Lasher, GERALYN (DHHS)

**Sent:** Friday, October 2, 2015 10:27 AM

**To:** Cooley, Tom (DTMB) <[cooley\\_t@michigan.gov](mailto:cooley_t@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

**From:** Cooley, Tom (DTMB)

**Sent:** Friday, October 02, 2015 10:26 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:24 AM

**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS)



<laserhg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

**From:** Cook, Rebecca (DTMB)

**Sent:** Friday, October 02, 2015 10:21 AM

**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <laserhg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

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**From:** Sederburg, Kari (DHHS)  
**Sent:** Friday, October 02, 2015 3:34 PM  
**To:** Schoenow, Kris (DHHS)  
**Cc:** Becker, Timothy (DHHS); Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Hanley, Farah (DHHS); Rigg, Steve (DTMB); Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** Re: Flint Water Update

Thanks to all. Let me know if you need Kathy Boles (AAA) contact info or if I can be any assistance on our end.

Thanks,  
Kari

On Oct 2, 2015, at 3:29 PM, "Schoenow, Kris (DHHS)" <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

Yes -- GCCARD planned on talking with them. I will let them know it is a priority.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Becker, Timothy (DHHS)  
**Sent:** Friday, October 2, 2015 3:22 PM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Sederburg, Kari (DHHS) <[SederburgK@michigan.gov](mailto:SederburgK@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** RE: Flint Water Update

I want the local area agency on aging to also have access to the filters to be distributed to the elderly through meals on wheels volunteers. I've copied Kari Sederburg to this message. Should she go through the CAA to ensure this access for the area agency on aging?

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 2, 2015 3:18 PM

**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

I think we are good with Monday.

Sent from my iPhone

On Oct 2, 2015, at 3:16 PM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Home Depot can deliver to GCCARD Sunday, if someone is there to accept the delivery; otherwise Monday.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 2:38 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

DHHS just signed the purchase order for the 5,000 filters. We are moving on this now.

DTMB- when can we say that Home Depot or Grainger will be delivering the filters?

Sent from my iPhone

On Oct 2, 2015, at 2:09 PM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

We appreciate everyone staying so patient as we make this happen and recognize that this is an evolving issue.

To that point we will now be issuing over and under counter filters (assuming most people will pursue the over counter faucet filters). Let's pursue 2/3 of the 5,000 for over counter and 1/3 of the 5,000 for under counter filter.

Sent from my iPhone

On Oct 2, 2015, at 1:56 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

thanks

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871

517-373-8896

[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:54 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871

517-373-8896

[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:15 PM

**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
  - b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
  - c. Specs for Brita faucet filter is attached.
  - d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
- a. The main contact person for Home Depot is David Khanuja – cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn – cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:



Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

**From:** Sanches, Christine (DHHS)

**Sent:** Friday, October 02, 2015 11:42 AM

**To:** Hanley, Farah (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)

**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 11:35 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, GERALYN (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

**From:** Lasher, GERALYN (DHHS)

**Sent:** Friday, October 2, 2015 10:27 AM

**To:** Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

**From:** Cooley, Tom (DTMB)

**Sent:** Friday, October 02, 2015 10:26 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherG@michigan.gov](mailto:lasherG@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:24 AM

**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasherG@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

**From:** Cook, Rebecca (DTMB)

**Sent:** Friday, October 02, 2015 10:21 AM

**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS)

<lsherg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

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**From:** Schoenow, Kris (DHHS)  
**Sent:** Friday, October 02, 2015 4:51 PM  
**To:** Rigg, Steve (DTMB); Sederburg, Kari (DHHS)  
**Cc:** Becker, Timothy (DHHS); Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Hanley, Farah (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** RE: Flint Water Update

Thank you

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
schoenowk@michigan.gov

---

**From:** Rigg, Steve (DTMB)  
**Sent:** Friday, October 2, 2015 4:33 PM  
**To:** Sederburg, Kari (DHHS) <SederburgK@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>  
**Cc:** Becker, Timothy (DHHS) <beckert1@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Hanley, Farah (DHHS) <hanleyf@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>  
**Subject:** RE: Flint Water Update

Under the counter filters from Grainger are going to be priced around \$150 each, their supplier stock is low at 860 units (3M Company out of Minnesota), and could be difficult for some to install.

The Home Depot faucet filters are much easier to install and priced at \$17.47 each with a 2-pack of replacement filters available for \$24.87.

Home Depot will have 20,000 filters shipped to one of their local Flint stores on Saturday and can be delivered on Sunday to the GCCARD if someone is available, otherwise will be delivered on Monday. Dave from Home Depot has already been in contact with Matt Purcell from GCCARD.

***Steve Rigg***

Buyer, Commodities Division  
DTMB/Procurement  
Constitution Hall, First Floor NE  
525 W. Allegan Street  
P. O. Box 30026  
Lansing, MI 48933  
(517) 284-7043 (phone)  
(517) 335-0046 (fax)  
1-855-647-8724 (toll free customer service)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

---

**From:** Sederburg, Kari (DHHS)  
**Sent:** Friday, October 02, 2015 3:34 PM  
**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Cc:** Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** Re: Flint Water Update

Thanks to all. Let me know if you need Kathy Boles (AAA) contact info or if I can be any assistance on our end.

Thanks,  
Kari

On Oct 2, 2015, at 3:29 PM, "Schoenow, Kris (DHHS)" <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

Yes -- GCCARD planned on talking with them. I will let them know it is a priority.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue

Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

---

**From:** Becker, Timothy (DHHS)  
**Sent:** Friday, October 2, 2015 3:22 PM  
**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Sederburg, Kari (DHHS) <[SederburgK@michigan.gov](mailto:SederburgK@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** RE: Flint Water Update

I want the local area agency on aging to also have access to the filters to be distributed to the elderly through meals on wheels volunteers. I've copied Kari Sederburg to this message. Should she go through the CAA to ensure this access for the area agency on aging?

---

**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 2, 2015 3:18 PM  
**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** Re: Flint Water Update

I think we are good with Monday.

Sent from my iPhone

On Oct 2, 2015, at 3:16 PM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:



Home Depot can deliver to GCCARD Sunday, if someone is there to accept the delivery; otherwise Monday.

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 2:38 PM  
**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** Re: Flint Water Update

DHHS just signed the purchase order for the 5,000 filters. We are moving on this now.

DTMB- when can we say that Home Depot or Grainger will be delivering the filters?

Sent from my iPhone

On Oct 2, 2015, at 2:09 PM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

We appreciate everyone staying so patient as we make this happen and recognize that this is an evolving issue.

To that point we will now be issuing over and under counter filters (assuming most people will pursue the over counter faucet filters). Let's pursue 2/3 of the 5,000 for over counter and 1/3 of the 5,000 for under counter filter.

Sent from my iPhone

On Oct 2, 2015, at 1:56 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

thanks

Kris Schoenow  
Executive Director

Bureau of Community Action and Economic  
Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:54 PM  
**To:** Schoenow, Kris (DHHS)  
<[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel,  
Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches,  
Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher,  
Geraldyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom  
(DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca  
(DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff  
(DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon  
(DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane  
(DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly  
(DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan  
(DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS)  
<[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS)  
<[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS)  
<[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS)  
<[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS)  
<[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS)  
<[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ)  
<[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ)  
<[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS)  
<[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS)  
<[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula  
(DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can  
start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS)  
<[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

GCCARD is wondering how many filters  
will be delivered to their site.

Kris Schoenow  
Executive Director  
Bureau of Community Action and  
Economic Opportunity  
Michigan Department of Health and  
Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:15 PM  
**To:** Rigg, Steve (DTMB)  
<[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Hertel, Elizabeth (DHHS)  
<[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches,  
Christine (DHHS)  
<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher,  
Geraldyn (DHHS)  
<[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom  
(DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>;  
Cook, Rebecca (DTMB)  
<[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee,  
Jeff (DTMB)  
<[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard,  
Sharon (DTMB)  
<[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino,  
Diane (DTMB)  
<[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen,  
Kimberly (DHHS)  
<[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas,  
Susan (DHHS)  
<[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri  
(DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>;  
Scott, Teri (DHHS)  
<[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette,  
Patrice (DHHS)  
<[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey,  
Marilyn (DHHS)  
<[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker,  
Timothy (DHHS)  
<[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer,  
Terrence (DHHS)  
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(DEQ) <epkeya@michigan.gov>;  
McDonald, Paul (DEQ)  
<mcdonaldp@michigan.gov>; Ray,  
Patricia (DHHS)  
<RayP2@michigan.gov>; Moran, Susan  
(DHHS) <MoranS@michigan.gov>;  
Kaiser Van Dam, Paula (DHHS)  
<KaiserP@michigan.gov>; Schoenow,  
Kris (DHHS)  
<SchoenowK@michigan.gov>  
**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg,  
Steve (DTMB) <RiggS@michigan.gov>  
wrote:

All,

Now that option #2 is a  
go, here are the  
questions we need to  
have answered:

1. Will you be  
offering the  
under the  
counter filters  
that were  
offered from  
Grainger or just  
the Brita filters  
from Home  
Depot?

Latest: We will not be offering under  
the counter filters

- a. No  
pricing  
yet  
from  
Grainge  
r on the  
under  
the  
counter

filters  
until  
they  
know  
quantity. However,  
Brent  
did say  
that  
manufacturer's  
inventory is  
low.

b. Home  
Depot  
pricing  
was  
\$17.47  
each on  
the  
Brita  
faucet  
filter  
and  
\$24.87  
for a 2-  
pack  
replacement  
cartridge.

c. Specs  
for  
Brita  
faucet  
filter is  
attached.

d. Specs  
for the  
Pentair  
under  
the  
counter  
filters  
are  
attached.

2. What is the  
quantity of

filters  
needed? If  
offering both  
faucet and  
under the  
counter, will  
need quantities  
of each

Since this is potentially a bigger non  
DHHS population, we don't have  
immediate access to census  
info. Wouldn't City of Flint have  
this?

Amy- Is there a DEQ contact over  
there to get Steve an estimate?

Steve- Can we start with a number  
like 20,000 and go from there? We  
need to start with a number until we  
get a better estimate and go from  
there.

3. Will you be offering cartridge  
replacements? If yes, how many?

I don't think anyone knows. We  
want to just start w the filters and  
worry about replacements a little  
later.

3. Who is going  
to be the main  
contact person  
that Home  
Depot and/or  
Grainger will be  
working with  
that will cut the  
PO and place  
the order?

a. The  
main  
contact  
person  
for  
Home  
Depot  
is David  
Khanuj

- a -- cell  
number  
248-  
826-  
8907
- b. The  
main  
contact  
person  
for  
Grainge  
r is  
Brent  
Zinn --  
cell  
number  
313-  
701-  
5454

Chris Sanches

- 4. What is the  
physical  
location that  
items will be  
delivered to?

It's the CAA in Genesee  
county. Elizabeth - Per your convos  
with the CAA does it go straight  
to their office? Also is there a  
contact person that can be reached?

If it goes to their office, their address  
is 601 North Saginaw Street, Suite  
1B, Flint, 48502

Finally just to reinforce, we are still  
waiting on an answer / confirmation  
of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*  
Buyer, Commodities  
Division  
DTMB/Procurement

Constitution Hall,  
First Floor NE  
525 W. Allegan  
Street  
P. O. Box 30026  
Lansing,  
MI 48933

(517) 284-7043  
(phone)

(517) 335-0046  
(fax)

1-855-647-8724  
(toll free customer  
service)  
[www.michigan.gov/mi  
contractconnect](http://www.michigan.gov/micontractconnect)



Online Bidding  
Website: [www.buy4michigan.com](http://www.buy4michigan.com)

---

**From:** Hertel, Elizabeth  
(DHHS)  
**Sent:** Friday, October  
02, 2015 11:46 AM  
**To:** Hanley, Farah  
(DHHS)  
<[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>  
>

**Cc:** Sanches, Christine  
(DHHS)  
<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn  
(DHHS)  
<[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB)  
<[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca  
(DTMB)  
<[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff  
(DTMB)  
<[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon  
(DTMB)  
<[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane  
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(DHHS)  
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(DHHS)  
<[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB)  
<[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS)  
<[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice  
(DHHS)  
<[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn  
(DHHS)

<careym@michigan.gov  
>; Becker, Timothy  
(DHHS)  
<beckert1@michigan.gov>; Beurer, Terrence  
(DHHS)  
<BeurerT@michigan.gov>; Epkey, Amy (DEQ)  
<epkeya@michigan.gov>; McDonald, Paul  
(DEQ)  
<mcdonaldp@michigan.gov>; Ray, Patricia  
(DHHS)  
<RayP2@michigan.gov>; Moran, Susan (DHHS)  
<MoranS@michigan.gov>; Kaiser Van Dam,  
Paula (DHHS)  
<KaiserP@michigan.gov>; Schoenow, Kris  
(DHHS)  
<SchoenowK@michigan.gov>

**Subject:** Re: Flint Water  
Update

They still need to have  
the filter specs on  
them.

Sent from my iPhone

On Oct 2, 2015, at  
11:44 AM, Hanley,  
Farah (DHHS)  
<hanleyf@michigan.gov>  
> wrote:

Thanks  
Chris  
and  
Tom --  
it looks  
good.

Just to  
be clear  
- This is  
for the  
vouche  
r

solution  
in which  
is still  
on  
hold.  
We're  
still  
waiting  
on an  
answer  
for this  
initiative  
as  
soon as  
possible.  
e.

---

**From:**

Sanche  
s,  
Christin  
e  
(DHHS)

**Sent:**

Friday,  
October  
02,  
2015  
11:42  
AM

**To:**

Hanley,  
Farah  
(DHHS)

**Cc:**

Lasher,  
Geraldyn  
(DHHS)

;

Cooley,  
Tom  
(DTMB)

; Cook,  
Rebecca

a  
(DTMB)

;

Brownle  
e, Jeff  
(DTMB)

;

Maynar  
d,  
Sharon  
(DTMB)

;

Fortino,  
Diane  
(DTMB)  
;  
Stephe  
n,  
Kimberl  
y  
(DHHS)  
;  
Kangas,  
Susan  
(DHHS)  
; Smith,  
Terri  
(DHHS)  
; Rigg,  
Steve  
(DTMB)  
; Scott,  
Teri  
(DHHS)  
;  
Gillette,  
Patrice  
(DHHS)  
; Carey,  
Marilyn  
(DHHS)  
;  
Becker,  
Timothy  
(DHHS)  
;  
Beurer,  
Terrenc  
e  
(DHHS)  
;  
Epkey,  
Amy  
(DEQ);  
McDona  
ld, Paul  
(DEQ);  
Ray,  
Patricia  
(DHHS)  
;  
Moran,  
Susan  
(DHHS)  
; Kaiser  
Van  
Dam,  
Paula  
(DHHS)  
;  
;

Schoen  
ow, Kris  
(DHHS)  
;  
Hertel,  
Elizabet  
h  
(DHHS)  
**Subject:** RE:  
Flint  
Water  
Update

Latest  
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Monda  
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Who  
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---

**From:**  
Hanley,  
Farah  
(DHHS)  
**Sent:**  
Friday,  
Octobe  
r 2,  
2015  
11:35  
AM  
**To:**  
Hertel,  
Elizabet  
h  
(DHHS)  
<[HertelE@micigan.gov](mailto:HertelE@micigan.gov)>;  
Sanche  
s,  
Christin  
e  
(DHHS)  
<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:**  
Lasher,  
Geraldyn  
(DHHS)  
<[lasher\\_g@micigan.gov](mailto:lasher_g@micigan.gov)>

higan.gov;  
Cooley,  
Tom  
(DTMB)  
<cooley  
t@mich  
igan.gov  
v>;  
Cook,  
Rebecca  
(DTMB)  
<CookR  
6@mic  
higan.gov  
ov>;  
Brownlee, Jeff  
(DTMB)  
<Brown  
leeJ@m  
ichigan.  
gov>;  
Maynard,  
Sharon  
(DTMB)  
<mayna  
rds1@  
michigan.  
gov>;  
Fortino,  
Diane  
(DTMB)  
<Fortin  
oD@mi  
chigan.  
gov>;  
Stephenson,  
Kimberly  
(DHHS)  
<STEPH  
ENK@  
michigan.  
gov>;  
Kangas,  
Susan  
(DHHS)  
<Kanga

s51@m  
ichigan.  
gov>;  
Smith,  
Terri  
(DHHS)  
<Smith  
T42@m  
ichigan.  
gov>;  
Rigg,  
Steve  
(DTMB)  
<RiggS  
@michi  
gan.gov  
>;  
Scott,  
Teri  
(DHHS)  
<ScottT  
13@mi  
chigan.  
gov>;  
Gillette,  
Patrice  
(DHHS)  
<Gillett  
eP@mi  
chigan.  
gov>;  
Carey,  
Marilyn  
(DHHS)  
<carey  
m@mic  
higan.g  
ov>;  
Becker,  
Timoth  
y  
(DHHS)  
<becker  
t1@mic  
higan.g  
ov>;  
Beurer,  
Terrenc  
e  
(DHHS)  
<Beurer  
T@mic



[higan.g](mailto:higan.gov)

[ov](mailto:higan.gov)>;

Epkey,

Amy

(DEQ)

[epkey](mailto:epkeya@mic)

[a@mic](mailto:epkeya@mic)

[higan.g](mailto:higan.gov)

[ov](mailto:higan.gov)>;

McDon

ald,

Paul

(DEQ)

[mcdo](mailto:mcdo)

[naldp@](mailto:mcdo)

[michiga](mailto:mcdo)

[n.gov">n.gov](mailto:mcdo)>;

Ray,

Patricia

(DHHS)

[RayP2](mailto:RayP2)

[@michi](mailto:RayP2)

[gan.gov](mailto:RayP2)

>;

Moran,

Susan

(DHHS)

[Moran](mailto:Moran)

[S@mic](mailto:Moran)

[higan.g](mailto:Moran)

[ov](mailto:Moran)>;

Kaiser

Van

Dam,

Paula

(DHHS)

[Kaiser](mailto:Kaiser)

[P@mic](mailto:Kaiser)

[higan.g](mailto:Kaiser)

[ov](mailto:Kaiser)>;

Schoen

ow, Kris

(DHHS)

[Schoe](mailto:Schoe)

[nowK@](mailto:Schoe)

[michiga](mailto:Schoe)

[n.gov">n.gov](mailto:Schoe)>

**Subject**

: RE:

Flint

Water

Update

**Import  
ance:  
High**

**Update**

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and  
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**From:**  
Hertel,  
Elizabet  
h  
(DHHS)  
**Sent:**  
Friday,  
October  
02,  
2015  
10:33  
AM  
**To:**  
Sanche  
s,  
Christin  
e  
(DHHS)  
**Cc:**  
Lasher,  
Geraldyn  
(DHHS)  
;  
Cooley,  
Tom  
(DTMB)  
;  
Hanley,  
Farah  
(DHHS)  
; Cook,  
Rebecc  
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(DTMB)  
;



Brownle  
e, Jeff  
(DTMB)  
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Maynar  
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Sharon  
(DTMB)  
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Fortino,  
Diane  
(DTMB)  
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Stephe  
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Kangas,  
Susan  
(DHHS)  
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Terri  
(DHHS)  
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Steve  
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Teri  
(DHHS)  
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Gillette,  
Patrice  
(DHHS)  
; Carey,  
Marilyn  
(DHHS)  
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Becker,  
Timothy  
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Beurer,  
Terrenc  
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(DHHS)  
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Epkey,  
Amy  
(DEQ);  
McDona  
ld, Paul  
(DEQ);  
Ray,  
Patricia  
(DHHS)  
**Subjec**

**t:** Re:  
Flint  
Water  
Update

Under  
sink  
filters  
will be  
allowed  
also.

Sent  
from  
my iPad

On Oct  
2, 2015,  
at  
10:30  
AM,  
Sanche  
s,  
Christin  
e  
(DHHS)  
<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
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key@michele.be>; MCDonald, Paul (DEQ) <mcdonaldp@

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1000\_US1500\_SpecSheet\_AU14.pdf>

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**From:** Hanley, Farah (DHHS)  
**Sent:** Saturday, October 03, 2015 3:33 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Re: Flint Water Update

Right - I remember her doing this. She simply looked it up on the web.

So let me see if she's able to add all three options to the voucher and redo it.

Sent from my iPad

On Oct 3, 2015, at 3:17 PM, Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)> wrote:

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**From:** Sanches, Christine (DHHS)  
**Sent:** Friday, October 2, 2015 1:32 PM  
**To:** Hanley, Farah (DHHS)  
**Cc:** Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Rigg, Steve (DTMB); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS)  
**Subject:** RE: Flint Water Update

Latest version of voucher is attached.

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 2, 2015 1:15 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>  
**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[Rigg5@michigan.gov](mailto:Rigg5@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
- b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
- c. Specs for Brita faucet filter is attached.
- d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja – cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn – cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

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**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS)



<KaiserP@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <hanleyf@michigan.gov> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

---

**From:** Sanches, Christine (DHHS)

**Sent:** Friday, October 02, 2015 11:42 AM

**To:** Hanley, Farah (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)

**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

---

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 11:35 AM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>

**Cc:** Lasher, Geralyn (DHHS) <laserhg@michigan.gov>; Cooley, Tom (DTMB) <cooleyT@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS)

<BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>;  
McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia  
(DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS)  
<MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS)  
<KaiserP@michigan.gov>; Schoenow, Kris (DHHS)  
<SchoenowK@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a **GO** on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

---

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS)

<SanchesC@michigan.gov> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

---

**From:** Lasher, Geralyn (DHHS)

**Sent:** Friday, October 2, 2015 10:27 AM

**To:** Cooley, Tom (DTMB) <cooleytm@michigan.gov>;

Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

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**From:** Cooley, Tom (DTMB)

**Sent:** Friday, October 02, 2015 10:26 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:24 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasherG@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher -- Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Friday, October 02, 2015 10:21 AM  
**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:04 AM  
**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasherG@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>  
**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>  
**Subject:** RE: Flint Water Update  
**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

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**From:** Hertel, Elizabeth (DHHS)  
**Sent:** Friday, October 02, 2015 10:03 AM  
**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** RE: Flint Water Update

Yes -- we are currently reaching out to the community action agency in genesee county to confirm the

willingness/capability for the second action item Farah detailed.

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**From:** Hanley, Farah (DHHS)  
**Sent:** Friday, October 02, 2015 10:01 AM  
**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)  
**Cc:** Ray, Patricia (DHHS)  
**Subject:** Flint Water Update  
**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

<Water Filter Voucher\_v6.pdf>

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**From:** Hanley, Farah (DHHS)  
**Sent:** Saturday, October 03, 2015 8:55 PM  
**To:** Cook, Rebecca (DTMB)  
**Cc:** Rigg, Steve (DTMB); Sederburg, Kari (DHHS); Schoenow, Kris (DHHS); Becker, Timothy (DHHS); Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** Re: Flint Water Update

Thanks Rebecca. Just to clarify I believe the issue is that the pitchers were not available right now so we're going with what Home Depot has for now.

Sent from my iPhone

On Oct 3, 2015, at 7:57 PM, Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)> wrote:

Per Farah's phone conversation earlier today with Jeff Brownlee, the water pitcher option is not being pursued.

DHHS remains the lead on creating the voucher.

Home Depot will deliver 5000 filters around 8 am on Monday morning. Per DHHS' purchase order, they are the type that attach to the faucet. The PO is for a total of 20,000 of this type of filter. The under sink mount model was not ordered.

I spoke with Home Depot this afternoon and they will confirm price and lead time on the under sink mount model, in case DHHS would also like to issue a purchase order for this. I will pass along info to the group as it is received.

Please feel free to call with any questions.

Rebecca Cook  
517-930-4015

On Oct 3, 2015, at 1:28 PM, "Hanley, Farah (DHHS)" <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

All - Please read the following as some of these items and changes may reflect your work depending on what department you're in.

Here's the latest:

Re Item #1 - Vouchers to DHHS clients - We need the vouchers to please have noted on the voucher 3 options available to the client for Wal Mart to get to the local offices -

1. An over the counter on the faucet filter
2. A pitcher with a filter in it
3. An under the counter / sink filter.

Whoever is developing the voucher - would you please update it for these three items? So far as specs go, DHHS purchasing has been checking the website for which specs to use. When updating the voucher I assume it needs to have those specs?



Re Item #2 - Filters from the DTMB Vendor to the Community Action Agency in Genesee County - Same as above, we'll need to have three options available so there's consistency among the options.

We're asking DHHS and DTMB to please use this latest info - ask whatever questions we need answered - to make this happen. If it's too late to do all three filter options, we can amend purchase orders if necessary.

If anyone believes I've missed anything or stated anything incorrectly please feel free to chime in here.

Sent from my iPad

On Oct 2, 2015, at 4:32 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

Under the counter filters from Grainger are going to be priced around \$150 each, their supplier stock is low at 860 units (3M Company out of Minnesota), and could be difficult for some to install.

The Home Depot faucet filters are much easier to install and priced at \$17.47 each with a 2-pack of replacement filters available for \$24.87.

Home Depot will have 20,000 filters shipped to one of their local Flint stores on Saturday and can be delivered on Sunday to the GCCARD if someone is available, otherwise will be delivered on Monday. Dave from Home Depot has already been in contact with Matt Purcell from GCCARD.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

**From:** Sederburg, Kari (DHHS)

**Sent:** Friday, October 02, 2015 3:34 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS)

<careym@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>

**Subject:** Re: Flint Water Update

Thanks to all. Let me know if you need Kathy Boles (AAA) contact info or if I can be any assistance on our end.

Thanks,  
Kari

On Oct 2, 2015, at 3:29 PM, "Schoenow, Kris (DHHS)" <SchoenowK@michigan.gov> wrote:

Yes -- GCCARD planned on talking with them. I will let them know it is a priority.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Becker, Timothy (DHHS)

**Sent:** Friday, October 2, 2015 3:22 PM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Sederburg, Kari (DHHS) <SederburgK@michigan.gov>

**Cc:** Hanley, Farah (DHHS) <hanleyf@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Cooley, Tom (DTMB) <cooleyT@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>

**Subject:** RE: Flint Water Update

I want the local area agency on aging to also have access to the filters to be distributed to the elderly through meals on wheels volunteers. I've copied Kari Sederburg to this message. Should she go through the CAA to ensure this access for the area agency on aging?

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 2, 2015 3:18 PM

**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

I think we are good with Monday.

Sent from my iPhone

On Oct 2, 2015, at 3:16 PM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Home Depot can deliver to GCCARD Sunday, if someone is there to accept the delivery; otherwise Monday.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 2:38 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

DHHS just signed the purchase order for the 5,000 filters. We are moving on this now.

DTMB- when can we say that Home Depot or Grainger will be delivering the filters?

Sent from my iPhone

On Oct 2, 2015, at 2:09 PM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

We appreciate everyone staying so patient as we make this happen and recognize that this is an evolving issue.

To that point we will now be issuing over and under counter filters (assuming most people will pursue the over counter faucet filters). Let's pursue 2/3 of the 5,000 for over counter and 1/3 of the 5,000 for under counter filter.

Sent from my iPhone

On Oct 2, 2015, at 1:56 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

thanks

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:54 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:15 PM

**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
  - b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
  - c. Specs for Brita faucet filter is attached.
  - d. Specs for the Pentair under the counter filters are attached.
2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

- 3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja – cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn – cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom – it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

**From:** Sanches, Christine (DHHS)

**Sent:** Friday, October 02, 2015 11:42 AM

**To:** Hanley, Farah (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)

**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 11:35 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy



(DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

**From:** Lasher, GERALYN (DHHS)

**Sent:** Friday, October 2, 2015 10:27 AM

**To:** Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS5@michigan.gov](mailto:RiggS5@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

**From:** Cooley, Tom (DTMB)

**Sent:** Friday, October 02, 2015 10:26 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS5@michigan.gov](mailto:RiggS5@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:24 AM

**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyT@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

**From:** Cook, Rebecca (DTMB)

**Sent:** Friday, October 02, 2015 10:21 AM

**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

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**From:** Hanley, Farah (DHHS)  
**Sent:** Monday, October 05, 2015 9:43 AM  
**To:** Cook, Rebecca (DTMB)  
**Cc:** Rigg, Steve (DTMB); Sederburg, Kari (DHHS); Schoenow, Kris (DHHS); Becker, Timothy (DHHS); Hertel, Elizabeth (DHHS); Sanches, Christine (DHHS); Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS)  
**Subject:** Re: Flint Water Update

Thanks Rebecca.

The latest now is only two options please for Home Depot as well as on the vouchers-only over the faucet or pitchers.

We will not offer an under the counter option. Thanks everyone

Sent from my iPhone

On Oct 5, 2015, at 9:03 AM, Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)> wrote:

Farah

DHHS Purchasing/Chris Sanches has been working with DTMB Printing Services/Mark Miller on printing the voucher. Chris is reviewing a proof now, and will be sharing the desired edits with Printing Services. Chris and Printing Services have planned for a DHHS employee that works in Lansing but lives in Flint to transport the vouchers, once they've been made.

Rebecca Cook  
517-284-7008  
Cell 517-930-4015

**From:** Hanley, Farah (DHHS)  
**Sent:** Sunday, October 04, 2015 2:19 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Sederburg, Kari (DHHS) <[SederburgK@michigan.gov](mailto:SederburgK@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>  
**Subject:** Re: Flint Water Update

Sounds like we are good with initiative number 2 - filters will get delivered so we are good to go.

So far as the vouchers go - we need to remove reference to Meijer and only have the vouchers be good for Wal Mart.  
Chris - Can you do this so we can get vouchers printed and finalized Monday morning through DTMB?

Please let everyone know if there are any other details or issues we're missing. Sorry for all the emails but it was the only way we could think of to get everyone on the same page. Thanks for everyone's help.

Sent from my iPad

On Oct 3, 2015, at 7:57 PM, Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)> wrote:

Per Farah's phone conversation earlier today with Jeff Brownlee, the water pitcher option is not being pursued.

DHHS remains the lead on creating the voucher.

Home Depot will deliver 5000 filters around 8 am on Monday morning. Per DHHS' purchase order, they are the type that attach to the faucet. The PO is for a total of 20,000 of this type of filter. The under sink mount model was not ordered.

I spoke with Home Depot this afternoon and they will confirm price and lead time on the under sink mount model, in case DHHS would also like to issue a purchase order for this. I will pass along info to the group as it is received.

Please feel free to call with any questions.

Rebecca Cook

517-930-4015

On Oct 3, 2015, at 1:28 PM, "Hanley, Farah (DHHS)" <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

All - Please read the following as some of these items and changes may reflect your work depending on what department you're in.

Here's the latest:

Re Item #1 - Vouchers to DHHS clients - We need the vouchers to please have noted on the voucher 3 options available to the client for Wal Mart to get to the local offices -

1. An over the counter on the faucet filter
2. A pitcher with a filter in it
3. An under the counter / sink filter.

Whoever is developing the voucher - would you please update it for these three items? So far as specs go, DHHS purchasing has been checking the website for which specs to use. When updating the voucher I assume it needs to have those specs?

Re Item #2 - Filters from the DTMB Vendor to the Community Action Agency in Genesee County - Same as above, we'll need to have three options available so there's consistency among the options.

We're asking DHHS and DTMB to please use this latest info - ask whatever questions we need answered - to make this happen. If it's too late to do all three filter options, we can amend purchase orders if necessary.

If anyone believes I've missed anything or stated anything incorrectly please feel free to chime in here.

Sent from my iPad

On Oct 2, 2015, at 4:32 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

Under the counter filters from Grainger are going to be priced around \$150 each, their supplier stock is low at 860 units (3M Company out of Minnesota), and could be difficult for some to install.

The Home Depot faucet filters are much easier to install and priced at \$17. 47 each with a 2-pack of replacement filters available for \$24.87.

Home Depot will have 20,000 filters shipped to one of their local Flint stores on Saturday and can be delivered on Sunday to the GCCARD if someone is available, otherwise will be delivered on Monday. Dave from Home Depot has already been in contact with Matt Purcell from GCCARD.

*Steve Rigg*

Buyer, Commodities Division

DTMB/Procurement

Constitution Hall, First Floor NE

525 W. Allegan Street

P. O. Box 30026

Lansing, MI 48933

(517) 284-7043 (phone)

(517) 335-0046 (fax)

1-855-647-8724 (toll free customer service)

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

**From:** Sederburg, Kari (DHHS)

**Sent:** Friday, October 02, 2015 3:34 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyf@michigan.gov](mailto:cooleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careyn@michigan.gov](mailto:careyn@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

Thanks to all. Let me know if you need Kathy Boles (AAA) contact info or if I can be any assistance on our end.

Thanks,  
Kari

On Oct 2, 2015, at 3:29 PM, "Schoenow, Kris (DHHS)" <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

Yes – GCCARD planned on talking with them. I will let them know it is a priority.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Becker, Timothy (DHHS)

**Sent:** Friday, October 2, 2015 3:22 PM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Sederburg, Kari (DHHS) <[SederburgK@michigan.gov](mailto:SederburgK@michigan.gov)>

**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** RE: Flint Water Update

I want the local area agency on aging to also have access to the filters to be distributed to the elderly through meals on wheels volunteers. I've copied Kari Sederburg to this message. Should she go through the CAA to ensure this access for the area agency on aging?

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 2, 2015 3:18 PM

**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS)



<KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>

**Subject:** Re: Flint Water Update

I think we are good with Monday.

Sent from my iPhone

On Oct 2, 2015, at 3:16 PM, Sanches, Christine (DHHS) <SanchesC@michigan.gov> wrote:

Home Depot can deliver to GCCARD Sunday, if someone is there to accept the delivery; otherwise Monday.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 2:38 PM

**To:** Schoenow, Kris (DHHS) <SchoenowK@michigan.gov>

**Cc:** Rigg, Steve (DTMB) <RiggS@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Lasher, Geralyn (DHHS) <lasergh@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Ray, Patricia (DHHS) <RayP2@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>; Kaiser Van Dam, Paula (DHHS) <KaiserP@michigan.gov>

**Subject:** Re: Flint Water Update

DHHS just signed the purchase order for the 5,000 filters. We are moving on this now.

DTMB- when can we say that Home Depot or Grainger will be delivering the filters?

Sent from my iPhone

On Oct 2, 2015, at 2:09 PM, Hanley, Farah (DHHS) <hanleyf@michigan.gov> wrote:

We appreciate everyone staying so patient as we make this happen and recognize that this is an evolving issue.

To that point we will now be issuing over and under counter filters (assuming most people will pursue the over counter faucet filters). Let's pursue 2/3 of the 5,000 for over counter and 1/3 of the 5,000 for under counter filter.

Sent from my iPhone

On Oct 2, 2015, at 1:56 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

thanks

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue  
Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:54 PM

**To:** Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleytm@michigan.gov](mailto:cooleytm@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>

**Subject:** Re: Flint Water Update

After further discussion with others, we believe we can start with 5,000 filters and go from there.

If we have to purchase more we'll do that.

Feel free to tell them 5,000. Thanks Kris.

Sent from my iPhone

On Oct 2, 2015, at 1:51 PM, Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)> wrote:

GCCARD is wondering how many filters will be delivered to their site.

Kris Schoenow  
Executive Director  
Bureau of Community Action and Economic Opportunity  
Michigan Department of Health and Human Services  
235 Grand Avenue

Suite 202  
PO Box 30037  
Lansing, MI 48909

517-241-4871  
517-373-8896  
[schoenowk@michigan.gov](mailto:schoenowk@michigan.gov)

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 1:15 PM

**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>

**Cc:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

Please see DHHS responses below.

Sent from my iPhone

On Oct 2, 2015, at 12:26 PM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

All,

Now that option #2 is a go, here are the questions we need to have answered:

1. Will you be offering the under the counter filters that were offered from Grainger or just the Brita filters from Home Depot?

Latest: We will not be offering under the counter filters

- a. No pricing yet from Grainger on the under the counter filters until they know quantity. However, Brent did say that manufacture's inventory is low.
- b. Home Depot pricing was \$17.47 each on the Brita faucet filter and \$24.87 for a 2-pack replacement cartridge.
- c. Specs for Brita faucet filter is attached.
- d. Specs for the Pentair under the counter filters are attached.

2. What is the quantity of filters needed? If offering both faucet and under the counter, will need quantities of each

Since this is potentially a bigger non DHHS population, we don't have immediate access to census info. Wouldn't City of Flint have this?

Amy- Is there a DEQ contact over there to get Steve an estimate?

Steve- Can we start with a number like 20,000 and go from there? We need to start with a number until we get a better estimate and go from there.

3. Will you be offering cartridge replacements? If yes, how many?

I don't think anyone knows. We want to just start w the filters and worry about replacements a little later.

3. Who is going to be the main contact person that Home Depot and/or Grainger will be working with that will cut the PO and place the order?
  - a. The main contact person for Home Depot is David Khanuja – cell number 248-826-8907
  - b. The main contact person for Grainger is Brent Zinn – cell number 313-701-5454

Chris Sanches

4. What is the physical location that items will be delivered to?

It's the CAA in Genesee county. Elizabeth - Per your convos with the CAA does it go straight to their office? Also is there a contact person that can be reached?

If it goes to their office, their address is 601 North Saginaw Street, Suite 1B, Flint, 48502

Finally just to reinforce, we are still waiting on an answer / confirmation of the voucher option.

Thanks

It is my opinion that the best thing to do right now is identify the main contact person so that he/she can contact David from Home Depot and/or Brent from Grainger to get moving on orders.

Side Note: David from Home Depot is telling me that the United Way purchased 4,000 filters from Home Depot to be donated. I don't know any more detail than that.

Let me know what else you need from DTMB. Thanks.

*Steve Rigg*

Buyer, Commodities Division  
DTMB/Procurement  
Constitution Hall, First Floor NE  
525 W. Allegan Street  
P. O. Box 30026  
Lansing, MI 48933  
(517) 284-7043 (phone)  
(517) 335-0046 (fax)  
1-855-647-8724 (toll free customer service)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

Online Bidding Website: [www.buy4michigan.com](http://www.buy4michigan.com)

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 11:46 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Cc:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[coolevt@michigan.gov](mailto:coolevt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** Re: Flint Water Update

They still need to have the filter specs on them.

Sent from my iPhone

On Oct 2, 2015, at 11:44 AM, Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)> wrote:

Thanks Chris and Tom -- it looks good.

Just to be clear - This is for the voucher solution which is still on hold. We're still waiting on an answer for this initiative as soon as possible.

**From:** Sanches, Christine (DHHS)

**Sent:** Friday, October 02, 2015 11:42 AM

**To:** Hanley, Farah (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS); Moran, Susan (DHHS); Kaiser Van Dam, Paula (DHHS); Schoenow, Kris (DHHS); Hertel, Elizabeth (DHHS)

**Subject:** RE: Flint Water Update

Latest proof attached. Tom is hoping to get approval on the format attached -- format only. He understands there may be a change to the store locations but if he can get the format to one of his staff before they leave at 2 p.m., it would make the difference in getting these done today or Monday.

Who can approve this?

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 2, 2015 11:35 AM

**To:** Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Cooley, Tom (DTMB) <[cooleyt@michigan.gov](mailto:cooleyt@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>; Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Kaiser Van Dam, Paula (DHHS) <[KaiserP@michigan.gov](mailto:KaiserP@michigan.gov)>; Schoenow, Kris (DHHS) <[SchoenowK@michigan.gov](mailto:SchoenowK@michigan.gov)>

**Subject:** RE: Flint Water Update

**Importance:** High

Update

DTMB and DHHS Purchasing

1. It is now a GO on item #2 below - To get filters to the Genesee County Community Action Organization for distribution.
2. Question: What questions do we all need to answer to get filters to the Genesee County Community Action Agency and develop our plan AND what is the timeline for when we believe this can happen?

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:33 AM

**To:** Sanches, Christine (DHHS)

**Cc:** Lasher, Geralyn (DHHS); Cooley, Tom (DTMB); Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ); Ray, Patricia (DHHS)

**Subject:** Re: Flint Water Update

Under sink filters will be allowed also.

Sent from my iPad

On Oct 2, 2015, at 10:30 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Tom,

Please add the words "tap water faucet" before filter.

Chris

**From:** Lasher, GERALYN (DHHS)

**Sent:** Friday, October 2, 2015 10:27 AM

**To:** Cooley, Tom (DTMB) <[cooleyT@michigan.gov](mailto:cooleyT@michigan.gov)>; Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

Still talking to Meijer but at this point I do not have their confirmation so standby on finalizing stores.

**From:** Cooley, Tom (DTMB)

**Sent:** Friday, October 02, 2015 10:26 AM

**To:** Hanley, Farah (DHHS) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Hertel, Elizabeth (DHHS) <[HertelE@michigan.gov](mailto:HertelE@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Scott, Teri (DHHS) <[ScottT13@michigan.gov](mailto:ScottT13@michigan.gov)>; Gillette, Patrice (DHHS) <[GilletteP@michigan.gov](mailto:GilletteP@michigan.gov)>; Carey, Marilyn (DHHS) <[careym@michigan.gov](mailto:careym@michigan.gov)>; Becker, Timothy (DHHS) <[beckert1@michigan.gov](mailto:beckert1@michigan.gov)>; Beurer, Terrence (DHHS) <[BeurerT@michigan.gov](mailto:BeurerT@michigan.gov)>; Epkey, Amy (DEQ) <[epkeya@michigan.gov](mailto:epkeya@michigan.gov)>; McDonald, Paul (DEQ) <[mcdonaldp@michigan.gov](mailto:mcdonaldp@michigan.gov)>

**Cc:** Ray, Patricia (DHHS) <[RayP2@michigan.gov](mailto:RayP2@michigan.gov)>

**Subject:** RE: Flint Water Update

We made the requested changes. Here is a PDF for your review.

Tom Cooley  
Printing Services.  
517-322-5487

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:24 AM

**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <laserhg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>; Cooley, Tom (DTMB) <cooleyt@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>

**Subject:** RE: Flint Water Update

**Importance:** High

Yes! Sounds like Chris made this suggestion already to Tom and we're going to do that. Adding Tom to the conversation.

Tom / Chris or whomever is updating the voucher – Please send all what the latest looks like.

No vouchers will be printed yet until we get confirmation from the DHHS front office.

**From:** Cook, Rebecca (DTMB)

**Sent:** Friday, October 02, 2015 10:21 AM

**To:** Hanley, Farah (DHHS); Hertel, Elizabeth (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Farah

Should the water filter specs be included in the voucher (NSF Certified, ANSI 53 compliant), to aid stores in providing compliant products?

Rebecca

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:04 AM

**To:** Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>; Sanches, Christine (DHHS) <SanchesC@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Fortino, Diane (DTMB) <FortinoD@michigan.gov>; Stephen, Kimberly (DHHS) <STEPHENK@michigan.gov>; Kangas, Susan (DHHS) <KangasS1@michigan.gov>; Smith, Terri (DHHS) <SmithT42@michigan.gov>; Rigg, Steve (DTMB) <RiggS@michigan.gov>; Lasher, Geralyn (DHHS) <laserhg@michigan.gov>; Scott, Teri (DHHS) <ScottT13@michigan.gov>; Gillette, Patrice (DHHS) <GilletteP@michigan.gov>; Carey, Marilyn (DHHS) <careym@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Beurer, Terrence (DHHS) <BeurerT@michigan.gov>; Epkey, Amy (DEQ) <epkeya@michigan.gov>; McDonald, Paul (DEQ) <mcdonaldp@michigan.gov>

**Cc:** Ray, Patricia (DHHS) <RayP2@michigan.gov>



**Subject:** RE: Flint Water Update

**Importance:** High

Thanks Elizabeth.

Here's the latest voucher

**From:** Hertel, Elizabeth (DHHS)

**Sent:** Friday, October 02, 2015 10:03 AM

**To:** Hanley, Farah (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** RE: Flint Water Update

Yes – we are currently reaching out to the community action agency in genesee county to confirm the willingness/capability for the second action item Farah detailed.

**From:** Hanley, Farah (DHHS)

**Sent:** Friday, October 02, 2015 10:01 AM

**To:** Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS); Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan (DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hertel, Elizabeth (DHHS); Lasher, Geralyn (DHHS); Scott, Teri (DHHS); Gillette, Patrice (DHHS); Carey, Marilyn (DHHS); Becker, Timothy (DHHS); Beurer, Terrence (DHHS); Epkey, Amy (DEQ); McDonald, Paul (DEQ)

**Cc:** Ray, Patricia (DHHS)

**Subject:** Flint Water Update

**Importance:** High

I am adding everyone from DHHS, DTMB, and DEQ who I understand is helping out with the Flint Water issue to this email so we can all be on the same page. Please forward this email to anyone you believe needs to be in the loop so we can get all-hands-on-deck.

Here is the latest:

1. We will move forward with the vouchers to be distributed at local county offices for DHHS clients only. DHHS Purchasing is going to reach out to DTMB to help us make copies of water marked, colored and other authentic detailed documents to get out to local offices as soon as possible. We will figure out costs and DTMB charges to DHHS later.
  - a. Latest change : From a budget/accounting perspective, we will not receive \$1 million from DEQ for this purpose. The \$1 million from DEQ will be for item #2. Instead, for this purpose, funding will come from a work project that our budget office will advance to SBO. Our budget office is working on that now.
2. There is now a new thing we will do to address the broader population - NON-DHHS or DHHS clients - per the DHHS and DEQ front offices. DHHS will work with DTMB to get water filters to the Community Action Agency in Genesee county to distribute. This will be paid for with the \$1 million DHHS will receive from DEQ.

This is the plan for now. Elizabeth – Please confirm have this right.

Everyone is encouraged to ask questions. Sorry for including so many people but the left hand needs to know what the right hand is doing here.

Thanks

<Water Filter Voucher\_v2.pdf>

<Brita FF-100 and SAFF-100 NSF-ANSI 53 Certification 2015-09-30.pdf>

<310125\_Pentek\_QuickChangeSys\_SpecSheet\_MY14.pdf>

<310127\_Pentek\_US1000\_US1500\_SpecSheet\_AU14.pdf>

## Appointment

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**From:** Scott, Teri (DHHS) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4B56F0DF2061409A87FBA0A0F2CC9020-SCOTT TERI]  
**Sent:** 10/7/2015 8:19:44 AM  
**To:** Stephen, Kimberly (DHHS) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=265c0837c3a34980acb5f1496cf3365d-Stephen Kimberly]; Sanches, Christine (DHHS) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=649d731e3b3e415e85838b6c7ddaf468-SanchesC]; Kangas, Susan (DHHS) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6c46cb13bd05425ca2a23c23b08d5e0e-Kangas Susan]; Bendele, Steven (DHHS) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bde9c73e34824589ba62a5c6d364404b-BendeleS]; Carey, Marilyn (DHHS) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ec1cce79da09407788b2b02660d9ea20-careym]; Cook, Rebecca (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2c072214bc9f472783db4bb8c06df01c-Cook Rebecca]; Brownlee, Jeff (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bae5bd3c6f244006a9a672e3df1f299c-Brownlee Jeff]  
**Subject:** Flint Water Implementation Planning  
**Location:** DTMB-Willow Conference Room  
**Start:** 10/7/2015 8:30:00 AM  
**End:** 10/7/2015 9:30:00 AM  
**Show Time As:** Tentative  
  
**Required Attendees:** Stephen, Kimberly (DHHS); Sanches, Christine (DHHS); Kangas, Susan (DHHS); Bendele, Steven (DHHS); Carey, Marilyn (DHHS); Cook, Rebecca (DTMB); Brownlee, Jeff (DTMB)

USA Toll-Free: (877)873-8017

ACCESS CODE: [REDACTED] HOST PASSWORD: [REDACTED]

Please note: Someone else had the conference line reserved at 9:00 but they were able to delay their call until 9:30, it is available for this meeting from 8:30 - 9:29. J

I'll watch for another room to open up. This one is Cass building, 1st floor, south of stairs.



The Public Health and Safety Organization

## NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, September 30, 2015** at 12:15 a.m. Eastern Time. Please [contact NSF International](#) to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:

<http://info.nsf.org/Certified/DWTU/Listings.asp?TradeName=ff%2D100&Standard=053&hdModlStd=ModlStd&>

Note: Certain claims, such as Arsenic (Pentavalent) Reduction, appear as active links, allowing you to access additional information regarding the specific contaminants.

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## NSF/ANSI 53 Drinking Water Treatment Units - Health Effects

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### The Brita Products Company

1221 Broadway  
Oakland, CA 94612  
United States  
800-24-BRITA

**Facility :** # 1 Brampton, Ontario, Canada

Brand Name / Trade Name / Model	Replacement Element	Service Cycle (gallons)	Flow Rate (gpm)	Claim
<b>Faucet Mount</b>				
Brita Faucet Filtration System SAFF-100	FR-200	100(1)	.58	2,4-D Reduction Asbestos Reduction Alachlor Reduction Atrazine Reduction Benzene Reduction Carbofuran Reduction Carbon Tetrachloride Reduction Chlordane Reduction Chlorobenzene Reduction

Brita® Faucet Filtration System FF-100[2] [3] [Pb]	FR-200	100(1)	.58	Endrin Reduction
				Ethylbenzene Reduction
				Lead Reduction
				Lindane Reduction
				Methoxychlor Reduction
				O-Dichlorobenzene Reduction
				Simazine Reduction
				Styrene Reduction
				Tetrachloroethylene Reduction
				Toluene Reduction
				Toxaphene Reduction
				Trichloroethylene Reduction
				Trihalomethanes (TTHM) Reduction
				Turbidity Reduction
				VOC Reduction
				2,4-D Reduction
				Asbestos Reduction
				Alachlor Reduction
				Atrazine Reduction
				Carbofuran Reduction
				Chlordane Reduction
				Cyst Reduction
				O-Dichlorobenzene Reduction
				Lead Reduction
				Lindane Reduction
				Methoxychlor Reduction
				Monochlorobenzene Reduction
				Styrene Reduction
				Trichloroethylene Reduction
				Toxaphene Reduction
				Turbidity Reduction
				Benzene Reduction
				Carbon Tetrachloride Reduction
				Endrin Reduction
				Ethylbenzene Reduction
				Simazine Reduction
				Tetrachloroethylene Reduction
				Toluene Reduction
				VOC Reduction
				Trihalomethanes (TTHM) Reduction

- (1) Claims of capacity or rated service cycle are not applicable for mechanical filtration.
- [2] Model available in white, chrome, and black.
- [3] As of production code beginning P52120.
- [Pb] Product also evaluated and determined to possess weighted average lead content of  $\leq 0.25\%$  and complies with lead content requirements for "lead free" plumbing as defined by California, Vermont, Maryland, and Louisiana state laws and the U.S. Safe Drinking Water Act.

NOTE: All replacement elements are components.

The category of VOC (Volatile Organic Chemical) includes a number of chemicals that are both man-made and naturally occurring. Water from wells and utilities may contain some of these contaminants. Some VOCs are pesticides, herbicides, or insecticides that seep into the ground water after application. Other VOCs enter the water supply through industrial or other waste disposal. This category also includes total trihalomethanes, which are a by-product of chlorination.

A VOC reduction claim by the manufacturer means the system reduces the concentration of all of the following contaminants:

alachlor	endrin	simazine
atrazine	ethylbenzene	styrene
benzene	ethylene dibromide (EDB)	1,1,2,2-tetrachloroethane
carbofuran	haloacetonitriles	tetrachloroethylene
carbon tetrachloride	bromochloroacetonitrile	toluene
chlorobenzene	dibromoacetonitrile	2,4,5-TP(silvex)
chloropicrin	dichloroacetonitrile	tribromoacetic acid
2,4-D	trichloroacetonitrile	1,2,4-trichlorobenzene
dibromochloropropane (DBCP)	haloketones	1,1,1-trichloroethane
o-dichlorobenzene	1,1-dichloro-2-propanone	1,1,2-trichloroethane
p-dichlorobenzene	1,1,1-trichloro-2-propanone	trichloroethylene
1,2-dichloroethane	heptachlor	trihalomethanes (TTHM)
1,1-dichloroethylene	heptachlor epoxide	bromodichloromethane
cis-1,2-dichloroethylene	hexachlorobutadiene	bromoform
trans-1,2-dichloroethylene	hexachlorocyclopentadiene	chlorodibromomethane
1,2-dichloropropane	lindane	chloroform
cis-1,3-dichloropropylene	methoxychlor	xylenes
dinoseb	pentachlorophenol	

**Facility :** Shenzhen, China

**Replacement    Service Cycle    Flow Rate**

Brand Name / Trade Name / Model	Element	(gallons)	(gpm)	Claim
<b>Faucet Mount [Pb]</b>				
Brita Faucet Filtration System SAFF-100	FR-200	100(1)	.58	2,4-D Reduction Asbestos Reduction Alachlor Reduction Atrazine Reduction Benzene Reduction Carbofuran Reduction Carbon Tetrachloride Reduction Chlordane Reduction Chlorobenzene Reduction Endrin Reduction Ethylbenzene Reduction Lead Reduction Lindane Reduction Methoxychlor Reduction O-Dichlorobenzene Reduction Simazine Reduction Styrene Reduction Tetrachloroethylene Reduction Toluene Reduction Toxaphene Reduction Trichloroethylene Reduction Trihalomethanes (TTHM) Reduction Turbidity Reduction VOC Reduction

(1) Claims of capacity or rated service cycle are not applicable for mechanical filtration.  
 [Pb] Product also evaluated and determined to possess weighted average lead content of  $\leq 0.25\%$  and complies with lead content requirements for "lead free" plumbing as defined by California, Vermont, Maryland, and Louisiana state laws and the U.S. Safe Drinking Water Act.

NOTE: All replacement elements are components.

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are a by-product of chlorination.

A VOC reduction claim by the manufacturer means the system reduces the concentration of all of the following contaminants:

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carbofuran	haloacetonitriles	tetrachloroethylene
carbon tetrachloride	bromochloroacetonitrile	toluene
chlorobenzene	dibromoacetonitrile	2,4,5-TP(silvex)
chloropicrin	dichloroacetonitrile	tribromoacetic acid
2,4-D	trichloroacetonitrile	1,2,4-trichlorobenzene
dibromochloropropane (DBCP)	haloketones	1,1,1-trichloroethane
o-dichlorobenzene	1,1-dichloro-2-propanone	1,1,2-trichloroethane
p-dichlorobenzene	1,1,1-trichloro-2-propanone	trichloroethylene
1,2-dichloroethane	heptachlor	trihalomethanes (TTHM)
1,1-dichloroethylene	heptachlor epoxide	bromodichloromethane
cis-1,2-dichloroethylene	hexachlorobutadiene	bromoform
trans-1,2-dichloroethylene	hexachlorocyclopentadiene	chlorodibromomethane
1,2-dichloropropane	lindane	chloroform
cis-1,3-dichloropropylene	methoxychlor	xylenes
dinoseb	pentachlorophenol	

---

Number of matching Manufacturers is 1


Number of matching Products is 3

Processing time was 0 seconds



**From:** Sustainable City Network <theinbox=scitynetwork.com@mail175.atl61.mcsv.net> on behalf of Sustainable City Network <theinbox@scitynetwork.com>  
**Sent:** Wednesday, October 07, 2015 5:34 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Top News: Bike Share Programs Roll Out

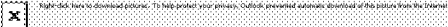
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October 7, 2015

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# Bike Share Programs Roll Out

## Survey Finds 77% of Universities Have One

*By Michelle Volkmann*

Today's college students don't want the hassle of bike maintenance or the annoyance of a stolen bicycle on a rainy day. At the same time, university sustainability managers want to encourage students to commute to their classes without using a car.

The answer?


For many students, faculty and staff it's a bike share program that allows riders to choose from a fleet of bicycles in a convenient location for minimal cost.

"Bike sharing is a method to provide affordable access to bicycles through a system of shared bicycles within a community," according to a 2015 University Bike Share Survey Analysis conducted by Grace Kyung. "Bike sharing has proven to help the environment, decrease road congestion, increase mobility, improve overall health and increase productivity in daily life."

[Read More...](#)

### Latest News

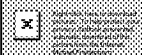
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#### In This Issue

##### Webinar Series: Learn to Facilitate Remote Meetings

Learn how to merge your existing facilitation skills with online technology to manage meetings effectively even when you cannot get people together in the same room.



This 6-hour online course provides a practical model and extensive toolkit for designing and facilitating online meetings.

This training, presented in three 2-hour webinars on Oct. 13, 14 and 15, offers specific strategies you can use immediately.

[Read More...](#)

## Three California Schools Honored as Healthiest in the Nation

RIVERSIDE, Calif. -- Three schools in the Alvord Unified School District received top recognition for their impact in fighting childhood obesity...

## HUD Awards Funds to Revitalize Housing and Neighborhoods

WASHINGTON -- U.S. Department of Housing and Urban Development Secretary Julián Castro traveled to Atlanta, Ga., and Kansas City, Mo., t...

## Providence, Anchorage School District Promote Youth Fitness

ANCHORAGE, Ala. -- Providence Health & Services Alaska and the Anchorage School District are teaming up with Sqord to help make kids health...

## EPA Updates Emissions Standards for Petroleum Refineries

WASHINGTON -- The U.S. Environmental Protection Agency has updated air pollution standards to further control toxic air emissions from p...

## Isabela Agrees to Environmental Improvements at Landfill

NEW YORK -- The U.S. Environmental Protection Agency and the Municipality of Isabela, Puerto Rico, have reached a legal agreement that w...

## Free Salary Negotiation Workshops for Women in Boston

BOSTON -- Mayor Martin J. Walsh announced a five-year partnership with the American Association of University Women to offer free salar...

## Village Creek Water Reclamation Facility Receives Award

FORT WORTH, Texas -- The Water Environment Research Foundation has recognized Fort Worth's Village Creek Water Reclamation Facility with its A...

## Boston Releases Building Energy Metrics

BOSTON -- The city of Boston released the first year of energy metrics for large buildings, including an interactive map for Boston res...

## Action Plan Will Help Flint Address Water Concerns

FLINT, Mich. -- Flint residents need to have access to safe, clean, water now and long into the future Governor Rick Snyder said while announc...

## Local Food Initiative Transitions to ISU Extension

AMES, Iowa -- Like soaring consumer interest in finding and using locally-sourced food, a strategic partnership of the Leopold Center for Sust...

## Emergency Planning and Response Agencies Honored

LENEXA, Kan. -- Nineteen emergency planning organizations were honored recently by the Local Emergency Planning Committee and Tribal Emergency...

## EPA Strengthens Ozone Standards to Protect Public Health

WASHINGTON -- Based on extensive scientific evidence on effects that ground-level ozone pollution, or smog, has on public health and wel...

## Great Lakes Restoration Initiative to Monitor Coastal Wetlands

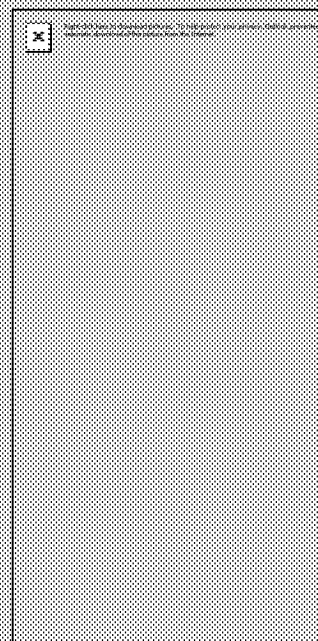
CHICAGO -- The U.S. Environmental Protection Agency recently announced that Central Michigan University in Mt. Pleasant, Mich., has recei...

## New Education Initiative to Enhance Algae Workforce Development

WASHINGTON -- The Algae Foundation, a non-profit organization committed to expanding the algae industry through research, education, and...

## Funds Dispersed to Fight Housing Discrimination

WASHINGTON -- The U.S. Department of Housing and Urban Development announced that it is



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## Sustainability in the City of Portland

Learn how the City of Portland, Ore., pioneered many of the sustainability programs that are commonplace today, and find out what they're up to now

In this free, one-hour webinar on Oct. 29, Susan Anderson, director of Portland's Bureau of Planning & Sustainability and Michael Armstrong, sustainability manager, will explain how the city's emphasis on land-use planning, transit oriented development and walkability has helped it become one of the most sustainable cities in the world.

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## Webinar Archives

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awarding more than \$38 million under HUD's Fair ...

## Kaiser Permanente Awards to Help Get Kids Active

DENVER -- David Carter loves his English class, the reading, writing and discussing his favorite authors, but his favorite part to his ...

## Product Announcements

### Customers Save More Than \$463 Million with PECO Smart Ideas

PHILADELPHIA, Pa. -- PECO customers have reduced their electric use by more than 2 million MWh with PECO Smart Ideas, the company's highly suc...

### Southwest Airlines Selects GE's Flight Efficiency Analytics

SAN FRANCISCO -- Southwest Airlines has selected GE's Flight Efficiency Analytics to support its fleet of nearly 700 Boeing 737 aircra...

### Siemens New RailFusion to Turn Big Data into Intelligence

MINNEAPOLIS -- Siemens recently introduced RailFusion, a powerful software solution that monitors and analyzes data points across an en...

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**Sent:** Wednesday, October 14, 2015 6:36 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Top News: Large-Scale Composting Challenges and Solutions

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Sustainable City Network

October 14, 2015

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# Large-Scale Composting Challenges and Solutions

## Composting Food Scraps at Hospitals and Universities

*By Jennifer Foden*

Composting is a great way to divert food scraps away from the trash can — but how can it be applied in a larger context, such as in a hospital or university cafeteria? Composting on such a large scale not only reduces negative impacts on the environment, but also provides an opportunity to educate thousands of patrons about the benefits of going green.

We asked these three university and hospital professionals four questions about their experiences implementing composting programs:


- **Matt Hart**, director of Dietary Services, Mary Greeley Medical Center, Ames, Iowa.
- **Sabrina Pashtan**, sustainability coordinator, Boston University Dining Services.
- **Laurie Kroymann**, senior associate director, Food and Nutrition Services, University of Iowa Hospitals and Clinics, Iowa City, Iowa.

Our four questions:

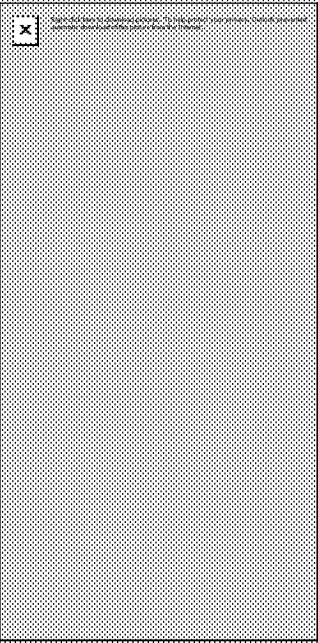
- 1) Why did you decide to adopt a university/hospital-wide composting program?
- 2) What are the logistics of composting food waste on such a large scale?
- 3) What unexpected challenges arose? How were they solved?
- 4) What has the response from cafeteria patrons been?

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### Latest News

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#### In This Issue



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#### Free Webinar

Sustainability in the

## Bloomington Earns Code for America 2015 Technology Award

BLOOMINGTON, Ind. — The city of Bloomington's InRoads applications was named among the inaugural winners of the Code for America Technology A...

## Grants to Help NYC Communities Address Environmental Challenges

NEW YORK — The U.S. Environmental Protection Agency has awarded \$84,000 to three New York City organizations working to address environ...

## Governor Signs Parking/Affordable Housing Bill

WASHINGTON — California Governor Jerry Brown signed into a law a bill that will help create more affordable housing by easing parking r...

## DOE Invests to Protect Nation's Energy Infrastructure

WASHINGTON — As part of the Obama Administration's commitment to protecting America's energy critical infrastructure, the Energy Depart...

## SmartWay Honors Green Leaders in the Freight Industry

WASHINGTON — The U.S. Environmental Protection Agency recently announced the 2015 winners of the coveted SmartWay Excellence Awards for...

## EPA recognizes Texas A&M Agrilife

DALLAS — The U.S. Environmental Protection Agency recently recognized Texas A&M Agrilife Research Extension Center at Dallas durin...

## Snyder Makes Recommendation on Flint Lead Contamination Crisis

CHICAGO — In the wake of Michigan Governor Rick Snyder's recommendation that the city of Flint reconnect to the Detroit water system to...

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**True North:** Make your health plan more sustainable! [Click here for more information.](#)

## Seattle Announces Safe Routes to School Action Plan

SEATTLE-- Mayor Ed Murray, Seattle Public Schools, the Seattle Department of Transportation, and community partners unveiled Seattle's ...

## Recipients of 2015 Environmental Justice Small Grants Announced

WASHINGTON -- The U.S. Environmental Protection Agency announced nearly \$1.2 million in competitive grants selected for award to 40 non-...

## All Aboard for More Accessible Bus Stops in Washington, D.C.

WASHINGTON -- The Washington, D.C., region prides itself on robust bus service, and a recent change to bus stop accessibility standards ...

## Energy Department Funds Training in Power Electronics

WASHINGTON -- The U.S. Department of Energy announced the two universities selected to receive nearly \$6 million to establish one or mor...

## ARPA-E Announces Funding for Window Efficiency Technologies

WASHINGTON -- The U.S. Department of Energy's Advanced Research Projects Agency-Energy announced up to \$30 million in funding for a new ...

## Public Water System to Reduce Arsenic in Drinking Water

## City of Portland

Learn how the City of Portland,



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Ore., pioneered many of the sustainability programs that are commonplace today, and find out what they're up to now

In this free, one-hour webinar, Susan



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Anderson, director of Portland's Bureau of Planning & Sustainability and Michael Armstrong, sustainability manager, will explain how the city's emphasis on land-use planning, transit oriented development and walkability has helped it become one of the most sustainable cities in the world.

Register now to attend this live webinar on Thursday, Oct. 29, beginning at 11 a.m. Pacific Time (noon Mountain, 1 p.m. Central and 2 p.m. Eastern).

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## Webinar Archives

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- Designing Wayfinding Systems that Extend Your Civic Brand ([Download](#))
- The Benefits of Biomass Combined Heat & Power ([Download](#))
- Sustainability in Denver, Colo. ([Download](#))
- Sustainability in the City of Baltimore ([Download](#))

LOS ANGELES -- The U.S. Environmental Protection Agency recently settled with Arvin Community Services District, located in Arvin, Cal...

## Inspections Reveal Hazardous Waste Violations at University

LENEXA, Kan. -- EPA Region 7 compliance evaluation inspections of the University of Missouri-Kansas City's Volker Campus and Dental School in ...

## Product Announcements

### New Power Features Installation Complete at NRG Park

HOUSTON -- NRG Energy announced the completion of an energy technology project at NRG Park, the 350-acre sports and entertainment compl...

### Suniva Powers New Solar Project for Michigan's Largest Utility

NORCROSS, Ga. -- Suniva, Inc., a metro-Atlanta based manufacturer of crystalline silicon solar cells and modules, announced the successful gro...

### Hilton Sparks Expansion of Charging Stations for Electric Vehicles

MCLEAN, Va. -- Hilton Worldwide announced a major electric vehicle charging program, which will be available at 50 U.S. hotels by the end of t...

- [Recycling Water for Supply Reliability \(Download\)](#)
- [Sustainability in Austin, Texas \(Download\)](#)
- [Extend the Life of Asphalt Roads with BIORESTOR \(Download\)](#)
- [Monetizing Water Assets \(Download\)](#)
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- [Design Guidelines for Transit Supportive Communities \(Download\)](#)
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**Sent:** Wednesday, October 28, 2015 8:17 AM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Facility Notification: Constitution Hall



## Protest Activity

---

### Date/Time:

Wednesday, October 28, 2015 from 12:00pm to 4:00pm

### Details:

Please be aware that there is a protest event planned for today, October 28, outside of the Constitution Hall from 12:00pm to 4:00pm. The event is being held in response to the water condition in Flint. Please plan your daily activities with this in mind as a large turnout for this event is anticipated. DTMB and MSP will be working together to monitor the situation.

### Contact:


DTMB Customer Service Center, [DTMB-Customerservice@michigan.gov](mailto:DTMB-Customerservice@michigan.gov) or 517-373-6227

---

This email was sent to [brownleej@michigan.gov](mailto:brownleej@michigan.gov) using GovDelivery, on behalf of DTMB - Lewis Cass Building - 320 South Walnut Street - Lansing, MI 48933 517-373-1004

**From:** Sustainable City Network <theinbox=scitynetwork.com@mail129.atl121.mcsv.net> on behalf of Sustainable City Network <theinbox@scitynetwork.com>  
**Sent:** Wednesday, November 18, 2015 6:55 PM  
**To:** Brownlee, Jeff (DTMB)  
**Subject:** Top News: Universities Tout Benefits of Green Power Partnership

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November 18, 2015


sCityNetwork.com

# Universities Tout Benefits of Green Power Partnership

## EPA Program Also Open to Businesses and Government Agencies

*By Andrea Hauser*  
*Associate Editor*

In an effort to both save energy costs and address student concerns, many universities are exploring options to increase their campus' energy efficiency and incorporate more renewable energy into the mix.



**Forty-two percent of Luther College's electricity consumption is energy derived from a wind turbine and solar panels on the roofs of some of its buildings.**

But keeping track of these efforts and measuring progress can be difficult, which is why the U.S. Environmental Protection Agency's Green Power Partnership can be a great resource.


The partnership is open to small businesses, local and state agencies, as well as colleges and universities, said Tegan Vaughn, an environmental protection specialist with EPA Region 7. It is completely voluntary and provides expert advice, tools to track progress and credibility for organizations that want to improve their energy efficiency and environmental image.

[Read More...](#)

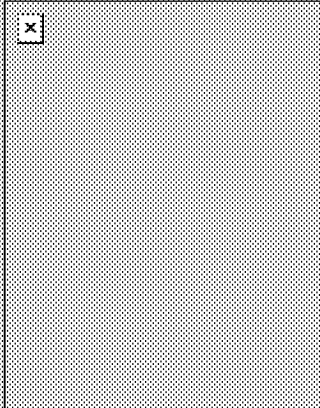
### Latest News

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**Perpetual Youth for Batteries? Lithium Ions Explained**



#### Our Latest Issue



Vol. 17: Read it now

#### Sustainability Grants

The following competitive grants are available to municipal and/or non-profit applicants, among others:

- Tech Hire Partnership Grants... [Details](#)
- Statewide Family Network Program... [Details](#)
- Groundwater and Streamflow Information Program... [Details](#)
- Advanced Nursing Education Program... [Details](#)



GARCHING, Germany – A key issue with lithium ion batteries is aging. It significantly reduces their potential storage capacity. To date, very...

### Organizations Recognized for Waste Reduction Efforts

WASHINGTON – The recently recognized the waste reduction accomplishments of 29 participants in and endorsers of EPA's Waste Wise progra...

### Leapfrog Group Names Winners of "Living the Vision" Awards

WASHINGTON – National non-profit, The Leapfrog Group, has named three exemplary organizations to receive its inaugural "Living the Visi...

### Funding Available for Brownfields Assessment and Cleanup

WASHINGTON – The U.S. Environmental Protection Agency is seeking applications for its Brownfields Assessment and Cleanup grants. EPA de...

### USGBC Announces 2016 Board of Directors and Advisory Council

WASHINGTON – The U.S. Green Building Council announced its 2016 Board of Directors and Advisory Council members. The new governance str...

### Steady Increase in Sustainability of Asphalt Pavements

LANHAM, Md. -- Nationwide, asphalt pavement mix producers continue to improve the sustainability profile of America's roads through the incorp...

### Iowa Group Accepts Nominations for Development Awards

1000 Friends of Iowa is now accepting nominations for the 2015 Best Development Awards.

### Residents of Flint Sue City, State over Lead in Drinking Water

CHICAGO – Residents of Flint, Mich., together with the ACLU of Michigan and the Natural Resources Defense Council, announced their inte...

### City Announces Progress in Red Light Camera Reform Efforts

CHICAGO – As part of its ongoing efforts to improve the Red Light Camera program, the Chicago Department of Transportation announced it...

### Grand Coulee Dam Charges Ahead with Electric Vehicles

GRAND COULEE DAM – Deputy Power Manager Doug Anderson is proud of the 27 electric utility trucks purchased by the Bureau of Reclamation for u...

### Mayor Joins Brighton Marine Health Center to Help Homeless Vets

BOSTON – To honor Veterans Day, Mayor Martin Walsh joined the Brighton Marine Health Center Board of Directors to announce that Bright...

### Newly-Installed CASA Radar Helps Spot Severe Weather Earlier

FORT WORTH, Texas – Fort Worth is the latest location in North Central Texas to add state-of-the-art CASA weather radar to help spot tornadoe...

### Fort Lauderdale Recognized for Outstanding Waste Reduction

ATLANTA – The U.S. Environmental Protection Agency recently recognized the waste reduction accomplishments of the city of Fort Lauderdal...

### Three Pacific Northwest Organizations Awarded EPA Grants

SEATTLE – The U.S. Environmental Protection Agency has awarded three environmental education grants totaling \$272,992 to non-profit or...


### New Land Use Rules to Accommodate Marijuana Stores

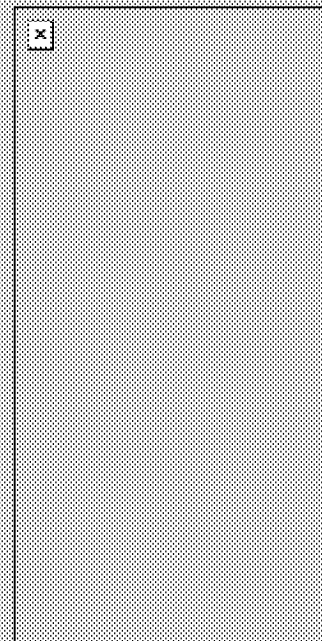
SEATTLE – Mayor Ed Murray proposed new rules to accommodate the expected increased number of state licensed retail marijuana stores in...

### Cuomo Vetoes Port Ambrose LNG Project

• Integrating Economic Development Across the Federal Government... [Details](#)

• Museums, Libraries, and Cultural Organizations Grants... [Details](#)

American Funding   
Innovators ([AFI](#)), developer of GrantNavigator, provides Sustainable City Network subscribers access to this powerful grant management tool.



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• Converting Biogas to Renewable Natural Gas ([Download](#))

• Using Smart Tech to Improve Water System Performance ([Download](#))

• Sustainability in the City of

LONG BEACH, N.Y. – Governor Andrew Cuomo announced he is vetoing the proposed Port Ambrose liquefied natural gas import facility off the coast...

### Partners to Recycle Nutrients from Livestock Waste

WASHINGTON – The U.S. Environmental Protection Agency has partnered with the U.S. Department of Agriculture, pork and dairy producers, ...

## Product Announcements

### Suniva and Nuance Energy to Power California Almond Grower

BUTTONWILLOW, Calif. – Suniva, Inc., a U.S. manufacturer of high-efficiency crystalline silicon solar cells and modules, announced that it wi...

### Lime Energy Awarded Direct Install Program Contract with PSE&G

WOODBIDGE, N.J. – Lime Energy Co., has been awarded a contract by Public Service Electric & Gas to implement a portion of their Direct I...

### Partners Start Construction on Biogas-Fueled Cogeneration Plant

LOS ANGELES – Constellation, a subsidiary of Exelon Corporation, and LA Sanitation announced the start of construction of a 25 MW bio...

### Ryder to Fuel Fleets with 100 Percent Renewable Natural Gas

MIAMI & NEWPORT BEACH, Calif. – Ryder System, Inc., and Clean Energy Fuels Corp., announced an agreement for Ryder to take the bold step ...

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**Subject:** Fwd: DTMB Procurement - Memo to Agency Purchasing Management - Key  
Emergency Final  
**Attachments:** DTMB Procurement - Memo to Agency Purchasing Management - Key Emergency  
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Sent from my iPhone

Begin forwarded message:

From: "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Date: February 2, 2016 at 11:55:37 AM EST  
To: "Buhs, Caleb (DTMB)" <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>  
Cc: "Harkins, Chris (DTMB)" <[HarkinsC1@michigan.gov](mailto:HarkinsC1@michigan.gov)>, "Bankowski, Jeffrey S. (DTMB)" <[BankowskiJ@michigan.gov](mailto:BankowskiJ@michigan.gov)>, "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
Subject: DTMB Procurement - Memo to Agency Purchasing Management - Key Emergency Final

Caleb,

Would you please help me distribute this to the enterprise? I need this to go to the top of every agency. Separately, I will send this to the procurement leadership team (all agencies). Please let me know your thoughts or if you have any concerns.

Thanks,  
Jeff



STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

RICK SNYDER  
GOVERNOR

DAVID B. BEHEN  
DIRECTOR

January 29, 2016

**TO:** State of Michigan Procurement Leadership  
**FROM:** DTMB Procurement  
**SUBJECT:** Genesee County Water Emergency Response - Purchasing Guidance

Thank you to all who are working to support the State of Michigan's Genesee County, City of Flint water emergency response.

Given the complexity and variety of the needs of this emergency effort, the purchasing support required is complex as well. Purchasing protocols have some differences under this declared state of emergency, and meticulous tracking of expenditures is imperative.

The Michigan State Police (MSP) is the lead agency overseeing the situation and managing the State Emergency Operations Center (SEOC). Flint related purchases must **first** be routed through the appropriate SEOC contact (see attached for an agency roster) to include the SEOC State Director. This is required for all Flint- related purchases without exception. The SEOC financial team is responsible for tracking all expenditures in connection with the emergency efforts.

***Each agency is responsible for its own purchasing transactions. This includes p-card transactions and purchase orders, the tracking of all such transactions, and reporting of those transactions to the appropriate SEOC representative. Failure to properly inform the SEOC financial team of any transaction may result in a forfeiture of any potential reimbursement anticipated by the agency.***

Agency purchasing managers are responsible to supply their agency's SEOC representative with a 24/7 phone number for agency purchasing staff support and request that the SEOC representative involves them in every purchase. (Note: SEOC hours are 8 am to 8 pm, seven days a week at this time.)

***Emergency Purchasing Procedure:***

Public Act 431 of 1984 provides an exception to competitive bidding during a state of emergency. However, responsible purchasing procedures are still the expectation for all procurement professionals (agency purchasing staff).

In addition to the notification and reporting expectations set forth above, transactions should be conducted and/or overseen by procurement professionals, with rare exception, in accordance with the following:

- Each agency makes their own determination when an emergency purchase order is required, and is then responsible for the supporting documentation
- Utilize existing State contracts where possible. Contact DTMB Procurement for help negotiating bulk rates or expedited shipments if needed, and for any concerns related to availability of funds on a contract

- Obtain three quotes whenever reasonably practicable
- Post bids online to the extent practicable
- Please escalate any questions to DTMB Procurement before executing a buy
- DTMB Procurement will assist any agency upon request to address supply chain issues (e.g. working with a national supplier to ensure a high volume supply of water filters are available)
- DTMB-Financial Services is not responsible for issuing emergency purchase orders on behalf of agencies with the exception of information technology related goods and services
- Maintain documentation supporting all transactions. Establish internal protocols to support this such as a single spreadsheet to track agency-wide transactions. Report your agency's expenses to the SEOC Finance team via your SEOC representative.

Questions, concerns, or comments should be directed to:

Primary Contact:

Rebecca Cook, Commodities Division Director

[Cookr6@michigan.gov](mailto:Cookr6@michigan.gov)

Cell: 517-930-4015

Secondary Contact:

Jeff Brownlee, Chief Procurement Officer

[brownleej@michigan.gov](mailto:brownleej@michigan.gov)

Cell: 517-930-3472

Sincerely,

Jeff Brownlee

Chief Procurement Officer

State of Michigan

---

**From:** BrownleeJ@michigan.gov  
**Sent:** Wednesday, February 03, 2016 3:26 PM  
**To:** Riehle, Jenni (DTMB)  
**Cc:** Stibitz, Brom (DTMB)  
**Subject:** Fwd: Emergency Response for Flint Michigan Water Contamination  
**Attachments:** ATT00001.htm

Jenni,  
Can you do this? Please confirm and provide a timeline, pls.  
Thank you,  
Jeff

Sent from my iPhone

Begin forwarded message:

From: "Stibitz, Brom (DTMB)" <StibitzB@michigan.gov>  
Date: February 3, 2016 at 3:24:31 PM EST  
To: "Riehle, Jenni (DTMB)" <RiehleJ2@michigan.gov>  
Cc: "Brownlee, Jeff (DTMB)" <BrownleeJ@michigan.gov>  
Subject: Fwd: Emergency Response for Flint Michigan Water Contamination

Can we generate a confirmation email?

Thanks,

Brom Stibitz

Begin forwarded message:

From: "Sachs, Tori (GOV)" <SachsT@michigan.gov>  
Date: February 3, 2016 at 3:22:42 PM EST  
To: "Stibitz, Brom (DTMB)" <StibitzB@michigan.gov>  
Cc: "Stoken, Laura (GOV)" <StokenL@michigan.gov>  
Subject: Fwd: Emergency Response for Flint Michigan Water Contamination

Hi Brom,

Any way we can get this to happen? See below.

Thanks  
Tori

Begin forwarded message:

From: "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
Date: February 3, 2016 at 3:20:44 PM EST  
To: "Sachs, Tori (GOV)" <[SachsT@michigan.gov](mailto:SachsT@michigan.gov)>  
Subject: FW: Emergency Response for Flint Michigan Water Contamination

Is there any way to have DTMB send a confirmation receipt to folks that submit their companies information online? We are getting many people wondering if their submission went through.

Thank you,

Laura

From: Christopher Persad [<mailto:cjpersad@aditechnologies.com>]  
Sent: Wednesday, February 03, 2016 12:49 PM  
To: Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>; Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
Subject: Emergency Response for Flint Michigan Water Contamination

Good afternoon,

I just finished completing and submitting our emergency vendor aid sheet, and I never received any sort of confirmation that it was sent. Would it be possible for you to direct me to the right people, or place to confirm that this did go through. If it did not then I will need to resend it, that's okay I just don't know if it went through. Please see attachment to view completed document.

Thank You,

B/R

--

CJ Persad  
ADI Technologies, Inc.  
1487 Chain Bridge Road, Suite 204  
McLean, VA 22101 USA  
(703) 734-9626 ext.221  
FAX (703) 448-8591  
[cjpersad@aditechnologies.com](mailto:cjpersad@aditechnologies.com)

[www.aditechnologies.com](http://www.aditechnologies.com)

---

**From:** BrownleeJ@michigan.gov  
**Sent:** Friday, February 05, 2016 10:22 AM  
**To:** Bliss, Mike (DTMB)  
**Cc:** Calahan, Heather (DTMB); Wellman, Jeff (DTMB)  
**Subject:** Fwd: FOIA Request From the Detroit Free Press Re: Flint Water  
**Attachments:** ATT00001.htm

Mike,  
Please review and advise. Thank you.  
Jeff

Sent from my iPhone

Begin forwarded message:

From: "Trakul, Pamela (DTMB)" <TrakulP@michigan.gov>  
To: "Stibitz, Brom (DTMB)" <StibitzB@michigan.gov>, "Buhs, Caleb (DTMB)" <BuhsC@michigan.gov>, "Buckberry, Gary (DTMB)" <buckberryg@michigan.gov>, "Christensen, Chris (DTMB)" <christensenc4@michigan.gov>, "Turnquist, Michael (DTMB)" <TurnquistM@michigan.gov>, "Brownlee, Jeff (DTMB)" <BrownleeJ@michigan.gov>  
Cc: "Knapp, Kathy (DTMB)" <knappk1@michigan.gov>, "Gonzalez, Tonyia (DTMB)" <GonzalezT1@michigan.gov>, "Fortino, Diane (DTMB)" <FortinoD@michigan.gov>  
Subject: FOIA Request From the Detroit Free Press Re: Flint Water

See FOIA request below.  
Pam 2/5/2016

From: Dolan, Matthew [mailto:msdolan@freepress.com]  
Sent: Thursday, February 04, 2016 4:49 PM  
To: DTMB <dtmb@michigan.gov<mailto:dtmb@michigan.gov>>  
Subject: FOIA request from the Detroit Free Press, RE: Flint water

Request for Public Record

To: FOIA Coordinators via email  
I am a person as defined under Michigan FOIA. Please accept this correspondence as a request pursuant to the Michigan Freedom of Information Act (FOIA) Michigan Compiled Laws §15.231 to §15.246 et seq., the Michigan Constitution and common law, and the U.S. Constitution, for certain public documents hereinafter specified.

Date of Request: 2/4/16 Time: 4:40 p.m. via email  
Person Requesting Record: Matthew Dolan Phone: 313-223-4743  
Mailing address: Detroit Free Press

160 W. Fort Street



Detroit, MI 48226

Email Address: msdolan@freepress.com<mailto:msdolan@freepress.com> Fax: n/a

Delivery Specifications:

Please select the quickest form to be able to view the documents:

- Email: to requestor at the email address above if possible, and if not please mail to the address above.
- In-office Inspection: Please contact me with an acceptable contact, time, and date when I may appear for inspection and possible scanning of documents.
- Pick- up: Please contact me with an acceptable contact, time, and date when I may pick up the documents.

Auditor or Attorney: \_\_\_\_\_ Contact: \_\_\_\_\_

Media Specification: Paper Copies or Email attachment less than 20 MB, CD-ROM or DVD, unless certain records are not available in computer format, in which case response by fax or in-person viewing is preferred Records requested: The records and documents I am requesting are all those relating to:

Copies of the documents, including but not limited to emails already requested by and provided to Progress Michigan or those associated with the organization related to any and all discussion of Flint's water supply, including but not limited to contaminant such as lead and copper in the water as well as any and all discussion of Legionnaire's disease in Genesee County, Mich.

For the purposes of this request, the term "you" or "your" refers to public body generating or maintaining the public records requested in this request, and to which this request is directed, whether that be an agency, municipality, office, county, or any other entity subject to disclosure under this act; the term "records" refers to all documents, regardless of physical form (including without limitation papers, reports, notes of telephone conversations, telephone call messages, studies, proposals, indices, letters, messages, faxes, minutes, logs, journal entries, calendars, and computer-based or computer-generated materials including e-mail, or any other documentation of any kind of any and all kind) of or belonging to any department, agency, service area, board or other subdivision of the public body. "Records" shall include drafts of records to the extent permitted by law; The term "email" includes any electronic message and any attachment to any such message, and specifically includes emails sent or received by an officer, agent, or employee using an email address other than that person's official government issued email address if sent or received while on duty, using a government computer, in a government building, sent or received using a government contact list, or other using any other government resource.

Michigan law requires you to respond to this request not more than five (5) days from your receipt of this request, but you are asked to expedite this request if possible. If this request is sent by fax or email, the time to comply begins the day after the faxed request is sent to you. If your agency does not maintain these public records, please let my designated auditor know who does, and include the proper custodian's name and address. If this fax request does not go directly to the office of the FOIA coordinator, you must deliver it there immediately. If you deny any part of this request, please indicate the name and position of the person too who an appeal should be directed prior to instituting suit, so that needless litigation in which costs, damages, and attorney fee may be taxed against you might be avoided.

Take notice of the penalties and consequences for failure to comply with this request: Willful violation of FOIA by refusing to disclose or delaying in disclosing or providing copies of a public record, may result in the court awarding in addition to any actual or compensatory damages, award punitive damages in the amount of \$500 to the person seeking the right to inspect or receive a copy of a public record. Reasonable attorneys' fees, costs, and disbursements" will be awarded to any person who prevails in an action to compel disclosure under MCLA § 15.240. If the requesting person only prevails in part, "the court may, in its discretion, award all or an appropriate portion of reasonable attorneys' fees, costs, and disbursements.

Because of the civic educational purpose of this request, I request a fee waiver and ask that you determine that a waiver or reduction of the fee is in the public interest because furnishing copies of the public record can be considered as primarily benefiting the general public." MCLA § 15.234(l)

I agree to pay any reasonable search, copying, and postage fees of not more than \$2.00. If the cost would be greater than this amount, Please immediately contact me by telephone or email if you anticipate that the costs will exceed this amount, so as not to cause delay in the prompt disclosure of the records requested. I may appear in person to inspect the documents or scan them using my portable equipment. Please provide a receipt indicating the charges for each document. The Michigan FOIA law provides that, "A fee shall not be charged for the cost of search, examination, review, and the deletion and separation of exempt from nonexempt information as provided in section 14 unless failure to charge a fee would result in unreasonably high costs to the public body because of the nature of the request in the particular instance, and the public body specifically identifies the nature of these unreasonably high costs. MCLA § 15.234(3).

If the documents I have requested are not subject to disclosure in their entirety, I request that you release all nonexempt portions of the documents that may be segregated and all parts of the documents that can be rendered disclosable by redaction without fee. If you determine that any of the requested documents fall within a statutory exemption, I request that you exercise your discretion to disclose those materials because of the overriding public concern about the improper use of government email systems and resources to further political agendas. As to any portion of the documents that you withhold, please state with specificity the legal and factual basis for withholding such portion. To the extent that you are unable to produce copies of or otherwise make available all records requested within the time frame provided, please notify my auditor in writing and provide me with those records that are available within the prescribed time frame and the remainder of the records on a "rolling" basis as they become available for production.

I appreciate your anticipated prompt cooperation and will expect your response within 5 days, as required by the act. If you need further explanation of the details or the nature or scope of this request, please feel free to call me or my designated auditor or attorney specified above using the contact information provided.

Matthew Dolan  
Detroit Free Press  
313-223-4743 (work)  
248-227-0497 (cell)  
msdolan@freepress.com<mailto:msdolan@freepress.com>  
@matthewsdolan

---

**From:** Brownlee, Jeff (DTMB)  
**To:** John Langeveld  
**Sent:** Friday, February 05, 2016 2:37 PM  
**Subject:** Read: LANDSTAR EMERGENCY TRANSPORTATION SERVICES - DISASTER RELIEF -  
FLINT MI WATER SUPPLY

Your message

To: Brownlee, Jeff (DTMB)  
Subject:

was read on 2/5/2016 2:37 PM.

---

**From:** BrownleeJ@michigan.gov  
**Sent:** Friday, February 05, 2016 2:37 PM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: LANDSTAR EMERGENCY TRANSPORTATION SERVICES - DISASTER RELIEF - FLINT MI WATER SUPPLY  
**Attachments:** ATT00001.htm; ATT00002.htm; ATT00003.htm; ATT00004.htm; ATT00005.htm; ATT00006.htm; ATT00007.htm; ATT00008.htm; ATT00009.htm; Landstar Emergency Transportation Services 2013.pptx; ATT00010.htm; mime-attachment; ATT00011.htm; Landstar (JNJ) Contact List -.pdf; ATT00012.htm

FYI

Sent from my iPhone

Begin forwarded message:

From: "John Langeveld" <[john.langeveld@landstarmail.com](mailto:john.langeveld@landstarmail.com)>  
To: "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Subject: LANDSTAR EMERGENCY TRANSPORTATION SERVICES - DISASTER RELIEF - FLINT MI WATER SUPPLY

# Emergency Transportation Services

Dear Mr. Brownlee,

We can help!

Landstar provided the city of New Orleans post Hurricane Katrina with over One hundred Water Tankers to provide **Clean Potable Drinking Water** public schools, hospitals, cruise ships that housed all emergency personnel and other public facilities.

Attached is a document that outlines some of our services.

-

Landstar offers extensive Emergency Logistics Services:

<!--[if !supportLists]-->● <!--[endif]-->Access to over several hundred large 6500 gallon water tankers.

<!--[if !supportLists]-->● <!--[endif]-->Straight trucks with lift gates to address any specific need.

**Please let me know if we can be of service during this difficult time with the contamination of the water supply in Flint. We can strategically position Tanks around the city to support both public facilities & the local residential communities.**

-

**Tankers**

<!--[if !supportLists]-->■ <!--[endif]-->6500 Gallon Capacity

<!--[if !supportLists]-->■ <!--[endif]-->Potable Water

**Please see attached for your Landstar Contact List**

**(24/7/365) John 908-675-6806**

Thank you,

John

John T Langeveld

Landstar/JNJ Global Logistics

General Manager

Ph: 732.292.9070

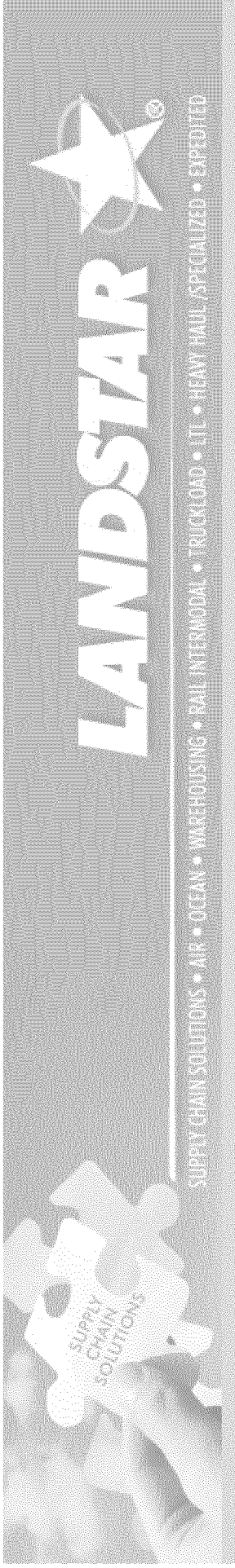
Fax: 732.292.9075

Cell: 908.675.6806

Email: [john.langeveld@landstarmail.com](mailto:john.langeveld@landstarmail.com)

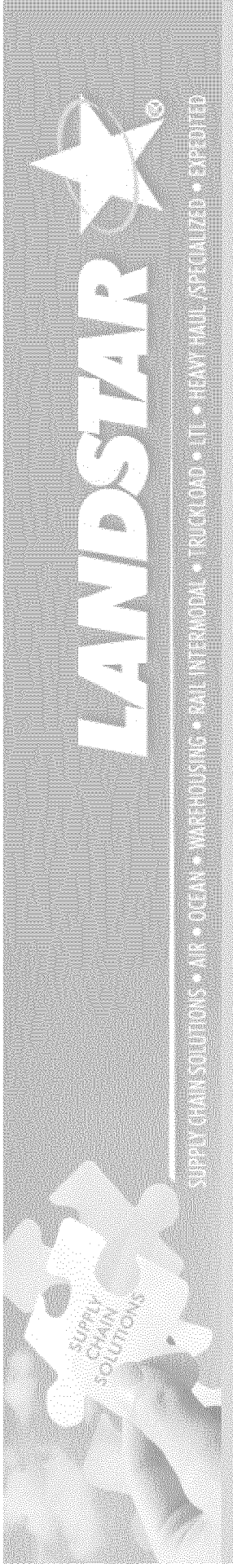
Web: [www.jnjgloballogistics.com](http://www.jnjgloballogistics.com)

**Connect with us!**



# Emergency Transportation Services Projects





## Corporate Overview

### Landstar Transportation Logistics

*Landstar Express America*

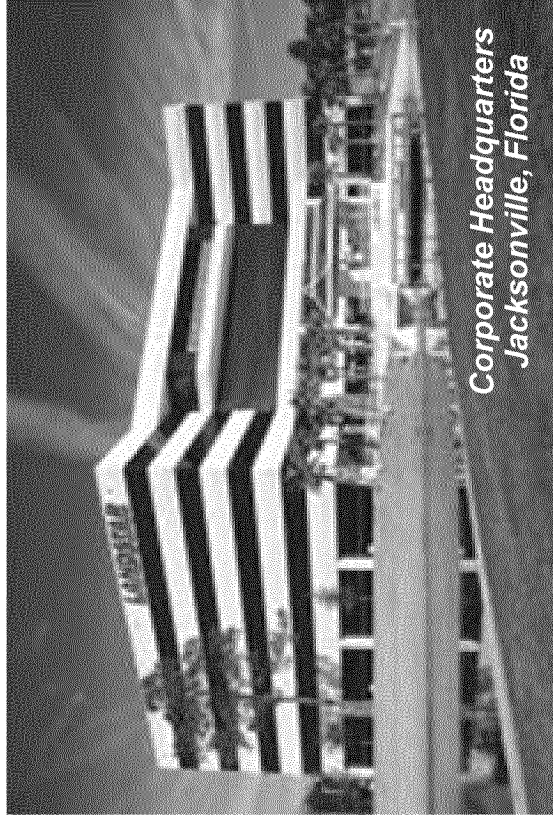
*Landstar Ligon    Landstar Inway*

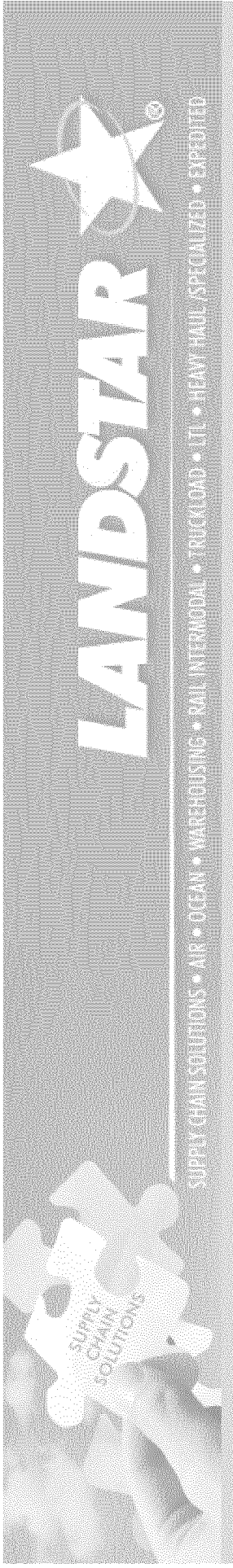
*Landstar Ranger    Landstar Gemini*

*Landstar Global Logistics*

*Landstar Supply Chain Solutions*

- Corporate Sales \$2.65 billion
  - Operating income \$183 million
- Employees - 1,291
- Independent Agents – 1,428
- Business Capacity Owners – 7,871
- Contracts with over 28,495 3<sup>rd</sup> Party Capacity Providers
  - Motor Carriers, Railroads, Ocean Lines & Airlines
- Warehouse Space - 63 facilities & 21.5 Million Square Feet Nationwide
- Publicly Traded on NASDAQ market – LSTR
- Dow Jones Transportation Index



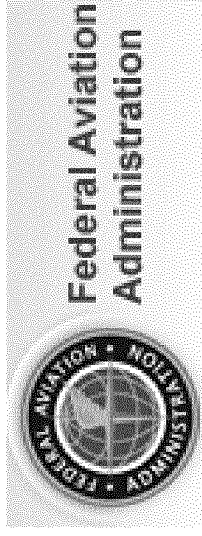


## Past Performance

- Landstar provides transportation and logistics services to NGO, state, and Federal agencies providing support functions under ESF #1, ESF #6 and ESF #7 of the National Response Framework



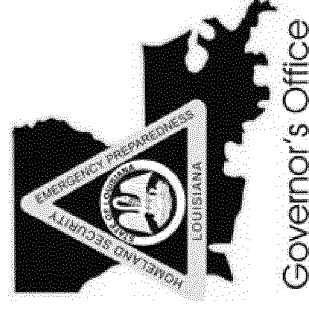
U.S. Department of  
Health & Human Services



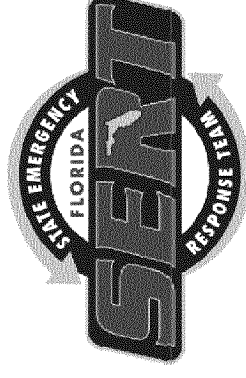
Federal Aviation  
Administration

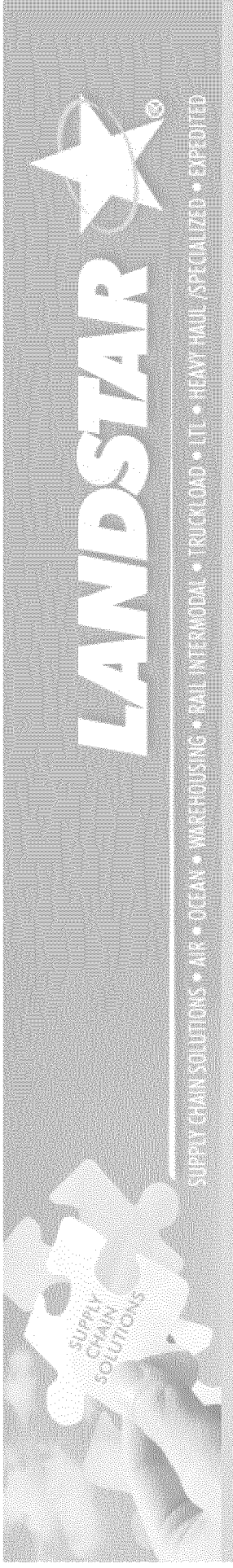


FEMA



Governor's Office





## Past Performance

### 2001 Competitive Contract Award with FAA

#### 9/11 Terrorist Attack on New York & D.C.

- 309 orders, emergency worker buses to & from WTC, straight trucks with lift-gates, flatbeds with forklifts

### 2002 Hurricane Lili

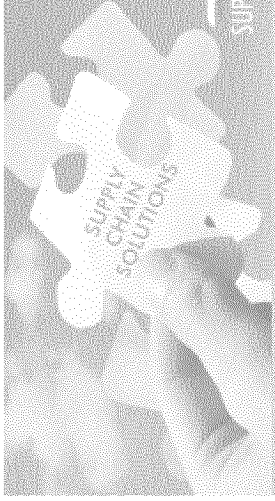
- 39 tasks, 114 orders. shuttle and linehaul trucks
- New IT functionality executed to provide real-time task tracking and web reports

### 2003 Hurricane Isabel

- 97 tasks, 422 orders – shuttle, linehaul, trailer rental, staff Ft. Eustis

### 2004 Hurricanes: Charley, Frances, Ivan, Jeanne

- 575 Tasks, 10,619 orders
- Travel trailer and mobile home shipments
- Created Task Management System for shipment and equipment tracking



SUPPLY CHAIN SOLUTIONS • AIR • OCEAN • WAREHOUSING • RAIL INTERMODAL • TRUCKLOAD • LTL • HEAVY HAUL / SPECIALIZED • EXPEDITED

## Past Performance

### 2005 Hurricanes Dennis, Emily, Katrina, Rita, Ophelia, Wilma

- 593 Tasks, 25,086 orders
- Post Katrina evacuation
  - 1,000 buses (65,000 people) & 100 flights (24,000 people)



### 2006 Hurricane Ernesto, Floods in NY & PA, Fires in CA

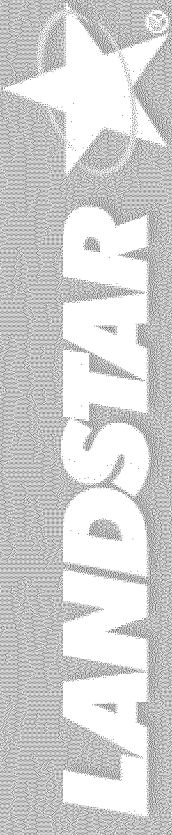
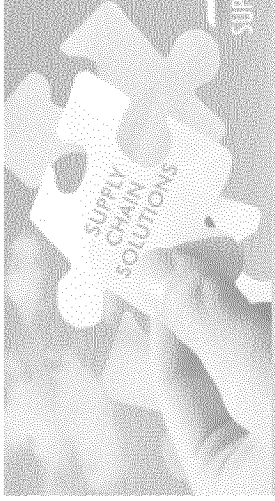
- Pre-positioning trailers, forklifts
- 609 tasks, 9,911 orders

### 2007 FEMA Prepositioning, Hurricane Dean, California Fires, Kansas Flood

- 183 tasks, 2,730 orders







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## Past Performance

**2008**    **1) Hurricanes Gustav & Ike**

**2) FEMA, TPASS, LA GOSHEP, FDEM**

- 183 tasks, 2,730 orders

**3) Louisiana Evacuation**

- 650 buses

**4) HHS**

- 63 Tasks

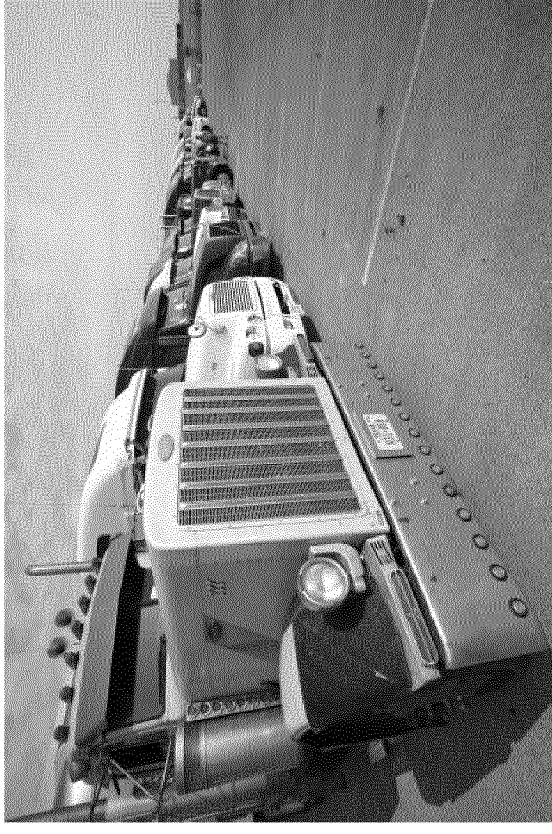
**2009**    **1) Presidential Declarations**

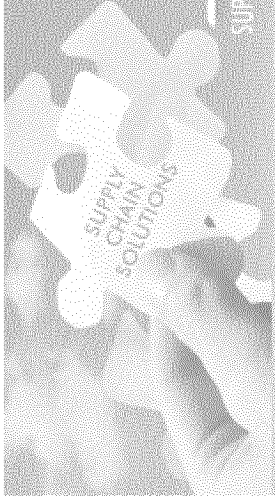
- Winter storms 1812-1828, North Dakota and Georgia Flooding 1829 & 1858, American Samoa Tsunami 1859
- 100 tasks

**2) North Carolina & Florida – H1N1 supplies**

**3) HHS**

- 39 tasks





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## Past Performance

### 2010

#### 1) Hurricanes Alex and Earl

- 9 tasks, 170 orders

#### 2) Floods in North Dakota and Tennessee

- 9 tasks, 234 orders

#### 3) FEMA Disaster Prepositioning

- 69 tasks, 171 orders

#### 4) Haiti Earthquake

- 1 tasks, 415 orders

### 2011

#### 1) Presidential Declarations

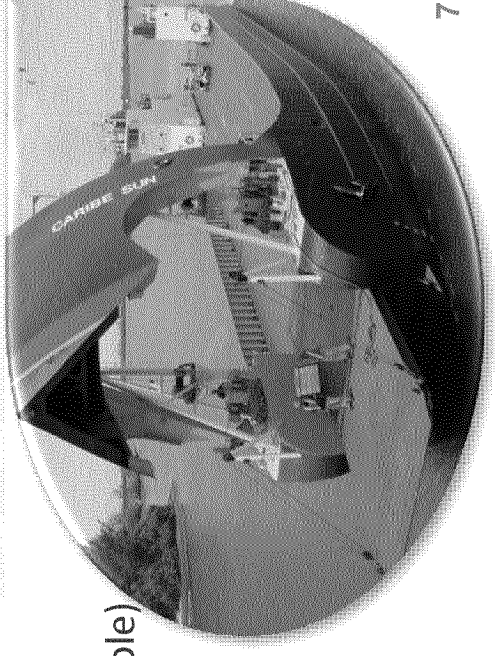
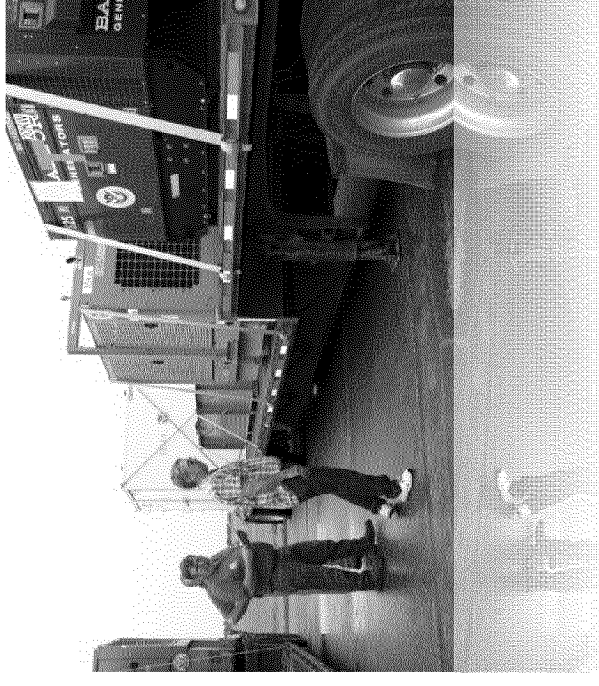
- Floods, Tornadoes, and Tropical Storms (Lee, Nicole)
  - 27 tasks, 677 orders

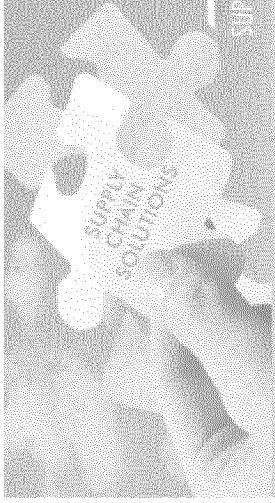
#### 2) Hurricane Irene

- 21 tasks, 509 orders

#### 3) FEMA Disaster Prepositioning

- 51 tasks, 419 orders

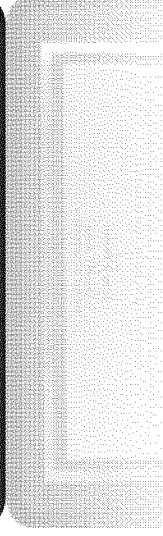
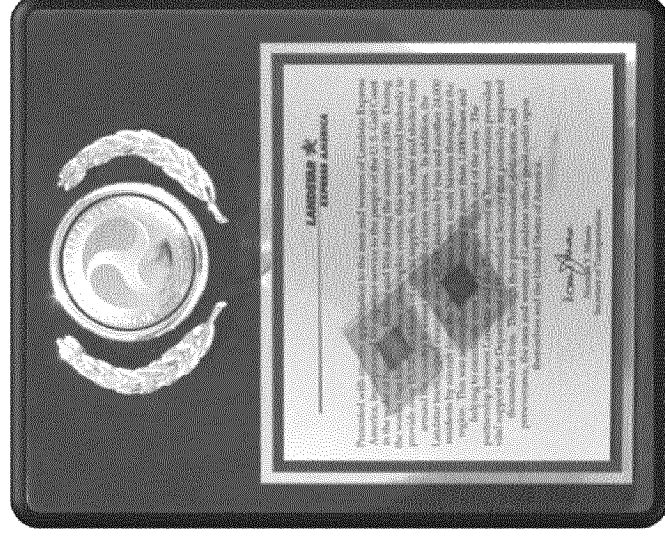




SUPPLY CHAIN SOLUTIONS • AIR • OCEAN • WAREHOUSING • RAIL INTERMODAL • TRUCKLOAD • LTL • HEAVY HAUL • SPECIALIZED • EXPEDITED

## Recognition For Distinguished Service

Secretary N. Mineta,  
DOT, Recognized  
Landstar Operators as  
Unsung Hero's of  
Hurricane Katrina

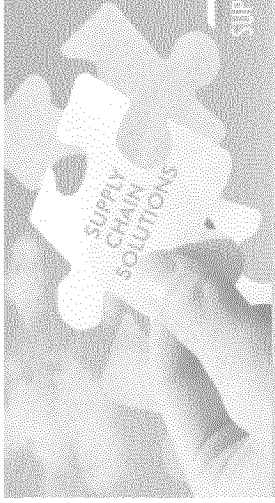


Landstar President &  
CEO Henry Gerkens  
Honored in Washington  
for Distinguished  
Service During  
Hurricane Katrina & Rita  
by Secretary N. Mineta

[Speaker Notes For Slide: 8]

David Miller





SUPPLY CHAIN SOLUTIONS • AIR • OCEAN • WAREHOUSING • RAIL INTERMODAL • TRUCKLOAD • JTL • HEAVY HAUL • SPECIALIZED • EXPEDITED

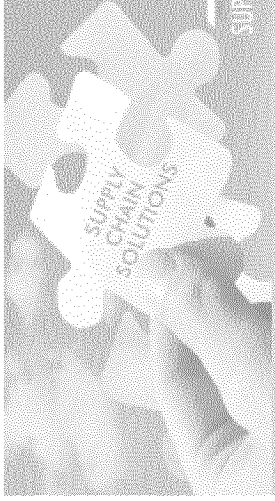
## Emergency Operations Center

### Experienced & Dedicated Professionals

- ▶ Concurrent staff operations and Task Management System updates in Jacksonville, FL and Rockford, IL



- ▶ Fully Staffed by Landstar personnel, 24x7x365
- ▶ Experienced and trained staff to direct drivers and service providers under state and federal emergency situation
- ▶ Provides overall situational awareness for each state or Federal agency

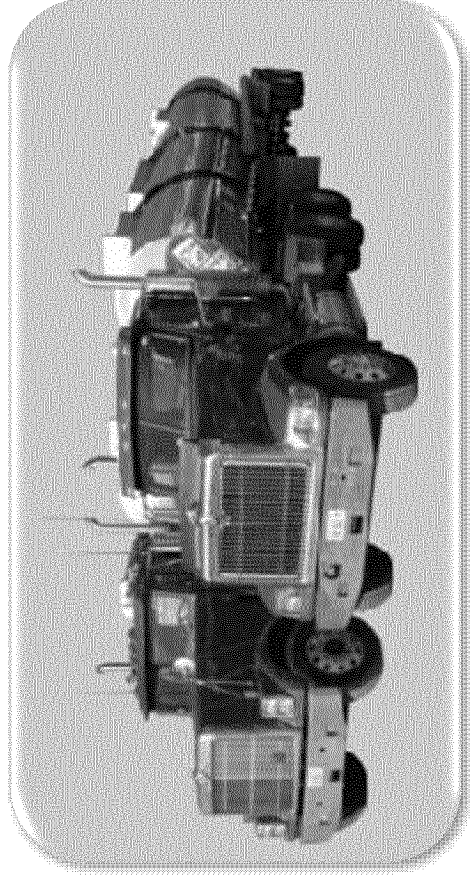


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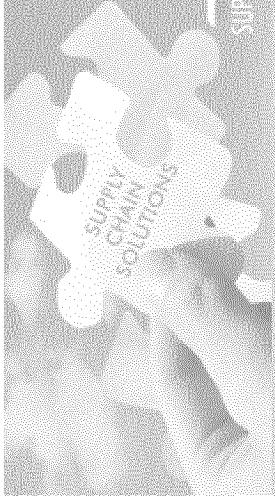
## Motor-Coach Passenger Service

- Move emergency services personnel as a team
- Door-to-Aircraft service for charters



## Emergency Fuel Delivery

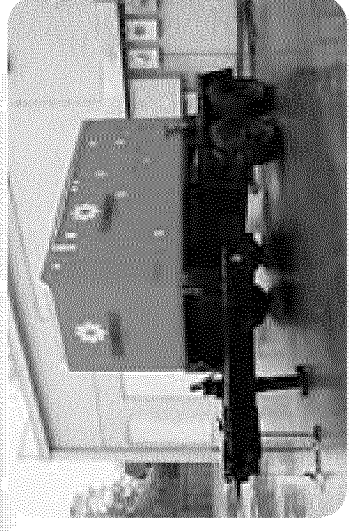
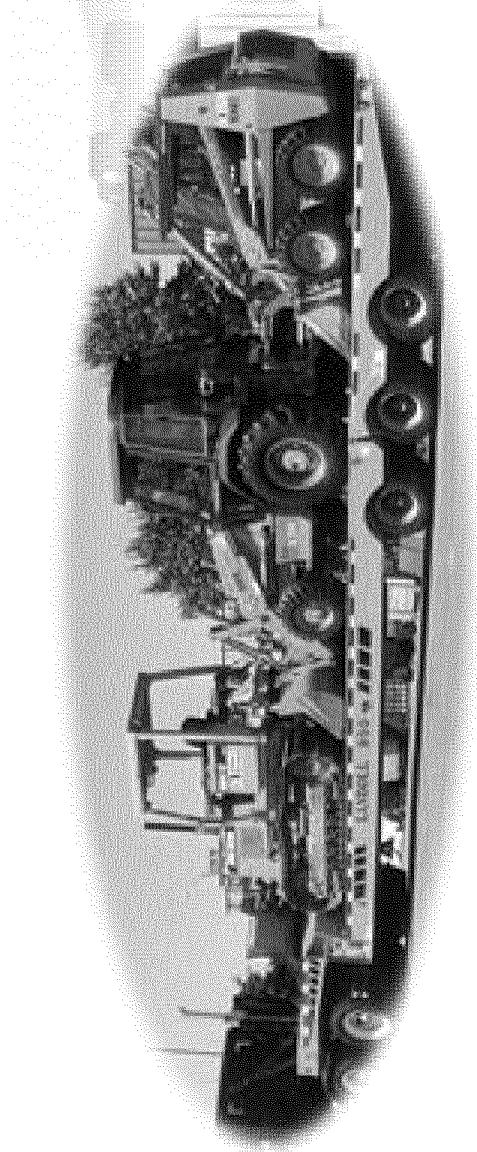
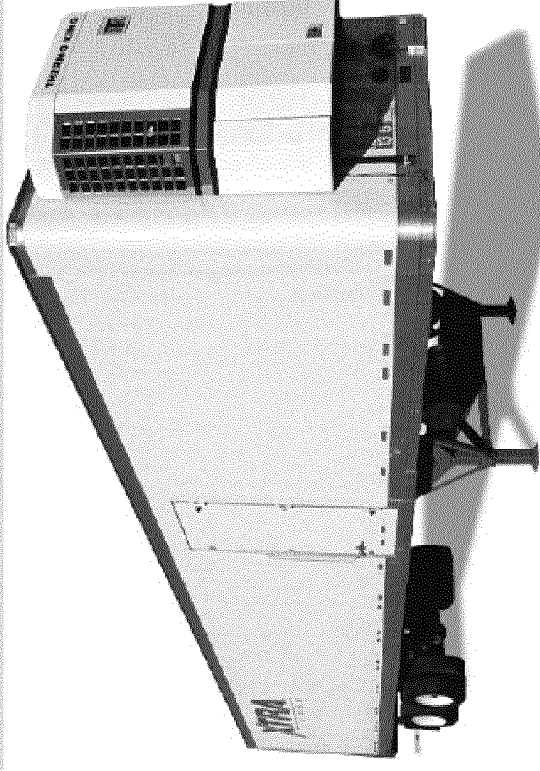
- Fuel delivered in bulk or directly to equipment
  - Keep equipment at staging area ready to go
  - Fuel vehicles, reefer trailers, and generators in the field
  - Teaming agreement with Foster Fuels, Inc.



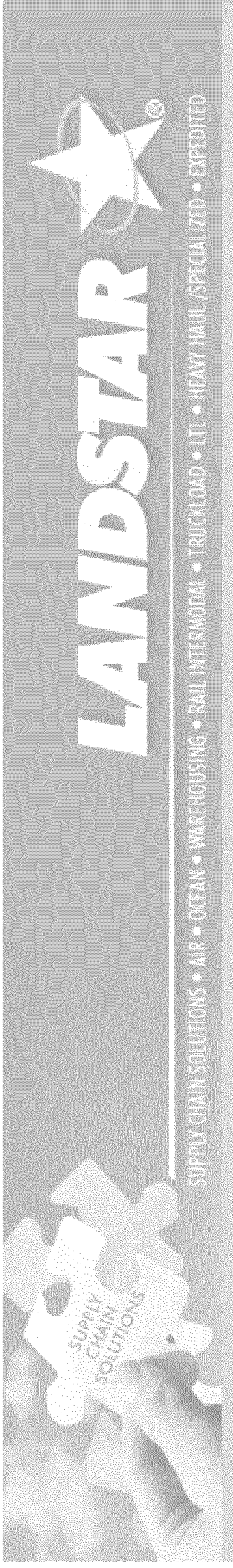
SUPPLY CHAIN SOLUTIONS • AIR • OCEAN • WAREHOUSING • RAIL INTERMODAL • TRUCKLOAD • LTL • HEAVY HAUL / SPECIALIZED • EXPEDITED

## Trailers, Material Handling Equipment and Services

- Lease dry van, refrigerated, specialized trailers, and material handling equipment
- Maintenance and fueling of trailer equipment at staging areas







## Task Management System

*The only transportation management system designed to track all the shipments and services ordered for emergency response!*



- Event-wide transportation situational awareness
- Every shipment on every task is tracked in 2-4 hour intervals around the clock
- Detailed pro-active communications with your EOC, vendor, and the POD

# LANDSTAR/JNJ Team Customer Service Contact List

## Weekday Coverage

### **Christine Gibbons | LANDSTAR**

Operations Manager

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

[Christine.gibbons@landstarmail.com](mailto:Christine.gibbons@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **Dolores Fulgham | LANDSTAR**

Operations / Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

[Dolores.fulgham@landstarmail.com](mailto:Dolores.fulgham@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **Mike White | LANDSTAR**

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1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 732-606-6266

[Mike.white@landstarmail.com](mailto:Mike.white@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **Rose Polk | LANDSTAR**

CSR

1500 meeting House road | Sea Girt, NJ 08736

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[Rosemary.polk@landstarmail.com](mailto:Rosemary.polk@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **Kathy Langeveld | LANDSTAR**

Administration

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

[Kathy.langeveld@landstarmail.com](mailto:Kathy.langeveld@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

## Weekend Coverage

### **Mike White | LANDSTAR**

Operations / Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 732-606-6266

[Mike.white@landstarmail.com](mailto:Mike.white@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **John Langeveld | LANDSTAR**

Sales / Operations Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 908-675-6806

[John.langeveld@landstarmail.com](mailto:John.langeveld@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

## Weekend Night Coverage

### **Mike White | LANDSTAR**

Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 732-606-6266

[Mike.white@landstarmail.com](mailto:Mike.white@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **John Langeveld | LANDSTAR**

Sales / Operations Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 908-675-6806

[John.langeveld@landstarmail.com](mailto:John.langeveld@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)



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---

**From:** BrownleeJ@michigan.gov  
**Sent:** Thursday, February 18, 2016 9:24 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: Flint water problems.  
**Attachments:** IMG\_0001.JPG; ATT00001.htm; IMG\_0009.JPG; ATT00002.htm; ATT66402.eml; ATT00003.htm; ReportViewer.pdf; ATT00004.htm; water testing2-6.pdf; ATT00005.htm

Here's one.

Sent from my iPhone

Begin forwarded message:

From: "Baird, Richard (GOV)" <bairdr@michigan.gov>  
To: "Weise, Kevin (MSP)" <WeiseK@michigan.gov>, "Brownlee, Jeff (DTMB)" <BrownleeJ@michigan.gov>  
Subject: Fwd: FW: Flint water problems.

Sent from my Verizon 4G LTE Droid

----- Forwarded message -----

From: "Scott, Allison (GOV)" <scotta12@michigan.gov>  
Date: Feb 16, 2016 9:46 AM  
Subject: FW: Flint water problems.  
To: "Weise, Kevin (MSP)" <WeiseK@michigan.gov>  
Cc: "Baird, Richard (GOV)" <bairdr@michigan.gov>

For your review

From: Jackie Goforth (US - Assurance) [mailto:jacalyn.s.goforth@pwc.com]  
Sent: Tuesday, February 16, 2016 9:33 AM  
To: Snyder, Rick (GOV) <Rick.Snyder@michigan.gov>  
Cc: Richard L. Baird <rbaird003@hotmail.com>; Scott, Allison (GOV) <scotta12@michigan.gov>  
Subject: Fwd: Flint water problems.

Rick,

First, let me say that my thoughts and prayers have been with you and your team. I can't even imagine the heartache you are experiencing over this situation.

You know how friends are, we can't help but try to see what ideas we can come up with to help provide some type of solution. One my High School friends thinks she and her family have one.

It is a Michigan based company that has a water filtration solution. Below is the information he shared with Debbie Stabenow, you may have already seen this, but in case you haven't I thought I would pass it along.

I can't think of a person better suited to lead us all through this situation. Thank you for your balanced and thoughtful leadership.

Kindest Regards,

Jackie

----- Forwarded message -----

From: Marybeth Novitsky <mbmills989@gmail.com<mailto:mbmills989@gmail.com>>

Date: Mon, Feb 15, 2016 at 7:54 PM

Subject: Fwd: Flint water problems.

To: jacalyn.s.goforth@us.pwc.com<mailto:jacalyn.s.goforth@us.pwc.com>,

jacalyn.s.goforth@pwc.com<mailto:jacalyn.s.goforth@pwc.com>

Cc: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Jackie -

Here is the letter that Joe sent to Senator Stabenow. Since then, the Merlin was installed at St Mary's church to supply water for the homeless, in their shelter. The next Merlin will be installed at St Luke's Women's and Children's Center. Thank you for your efforts.

We appreciate it.

Marybeth



----- Forwarded message -----

From: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Date: Thu, Jan 28, 2016 at 12:45 PM

Subject: Flint water problems.

To: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Good Morning Senator.

Please take the time to read this—WE CAN HELP--

This is Joe Novitsky, Architect and inventor of a water purifier that can eliminate or minimize the bottled water eco disaster pending in Flint.

We have been studying the problem, testing the water, and watched you last night on Rachael's show.

YOU DID GREAT! You are the ONLY one that understands the problem right now—even Rachael is not as clear as you on the solution.

Yes, we need filtered water and no one is ever going to dig up the entire City—the pipes will re-coat, and the new supply form Lake Huron will be complete within 18 months and the City system will again be healthy, but what to do until then?

We have a plan.

Of the 100K residents affected we estimate 25,000 households, and 14,000 businesses, based on information taken from the internet.

Each household of 4 needs 5 gallons per day for drinking and cooking.

We can service this need with approximately 300 units, distributed across the City with the HELP OF the COMMUNITY, and that is where you come in. These Places distributing water must be relieved from paying for the water being distributed. If that can be accomplished, we can solve this 18 month problem for about \$2.5M—FAR LESS than any other proposed effort we have heard about.

We would recommend filtered shower heads, ( about \$50 each), maybe for the clothes washer as well, and one Merlin Eco Solutions unit for about 80-100 homes ( one unit / station per every three blocks), at \$2,000 each, installed by currently unemployed technicians and Vets- that will be paid to do this. We could distribute in 5 gallon camping containers, and each resident would have to lug their daily water no more than a block and a half. It's a pain – but what other REAL choice do we have? The filters they are distributing now are good for 100 gallons, untested, and again an

eco-disaster in and of themselves. Our lead filters do not have to be changed for up to 10,000 each and the first primary filter is ceramic and can be cleaned re-used for as many as half a million gallons each!

This same equivalent in bottled water equals 1,250,000 bottles spent PER DAY!! The raw cost, ( \$1/bottle) and associated cost of the current campaign are certainly not sustainable nor acceptable. Have you ever tried to shower with a bottle of water?

Please see the Flint water test results attached. A photo of one that was being installed in a Flint shelter is also attached. The two samples in the other photos are from Michigan Works!, just down the street from your Office, before and after purifying.

Our website is: [www.merlinecosolutions.com](http://www.merlinecosolutions.com)<<http://www.merlinecosolutions.com>>

We are currently working on getting one or two installed at St. Mary's Church currently servicing the bottle distribution, homeless shelter and Michael's Soup Kitchen. This will make an immediate contribution and difference. We did this with funds from GoFundMe site and contributions! (see attached). By the time we get something going with you, you will have their support as we took their water samples yesterday and they are being tested today. Deacon Paul is our contact there. We are currently attempting to help Dr. Mona as well----

FYI—Stanford University Medical Staff, Dr. Weiss, has endorsed this unit and science and Michigan State Chemistry and Biology Labs and Students will be monitoring the units we install to safeguard the residents and process. National Testing Labs have been the Lab we are using to date., (see attached).

I can be reached and will come demonstrate and show off our unit and results whenever you have time – if you are inclined to help us.

Thanks for the time--- and your awareness--- and focus on the solution—

Sincerely,

Joseph S. Novitsky, AIA

Merlin Eco Solutions

O (248) 433-2030

M (586) 995-2170

Joe@JSN-AIA.com<mailto:Joe@JSN-AIA.com>

Skype: JoeN-AIA

---

[Avast logo]<<http://www.avast.com/>>

This email has been checked for viruses by Avast antivirus software.  
[www.avast.com](http://www.avast.com/)<<http://www.avast.com/>>

----- Forwarded message -----

From: Charles Chervenka <[cjchervenka@gmail.com](mailto:cjchervenka@gmail.com)<<mailto:cjchervenka@gmail.com>>>

To: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)<<mailto:joe@jsn-aia.com>>>

Cc:

Date: Tue, 12 Jan 2016 20:36:17 -0500

Subject: Fwd: Lynn posted an update on "Water Purifier for Mission of Hope"

Here's the site for funding. Just click on it.

To get the test data google Merlin Eco Solutions and then click on "test results" at the top of the page.

CJC

----- Forwarded message -----

From: Lynn via GoFundMe <messages@gofundme.com<mailto:messages@gofundme.com>>  
Date: Tue, Jan 12, 2016 at 9:56 AM  
Subject: Lynn posted an update on "Water Purifier for Mission of Hope"  
To: cjchervenka@gmail.com<mailto:cjchervenka@gmail.com>

Hi Charles A new update has been posted to Water Purifier for Mission of Hope Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't nee...

[<https://febc376daf6131a28181-3721cc30b0d63259b2211381d1431a50.ssl.cf1.rackcdn.com/logo-email-v5@2x.png>]

Charles, I posted an update on

Water Purifier for Mission of Hope

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>

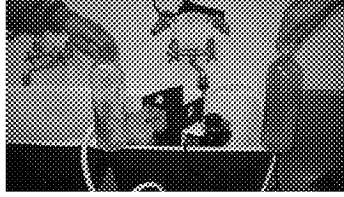
Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't nee...

View Campaign

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dcta\\_button%26utm\\_campaign%3Dupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRf8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dcta_button%26utm_campaign%3Dupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRf8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>

[[https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293\\_1452465809.8834.png](https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293_1452465809.8834.png)][http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRf8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRf8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIsLmNvbTs%3D)>





**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166

(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349706****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw, Tap Water**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	1.20*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	34.0	1	1/19/2016 10:30	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	5.000*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	9.100*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	0.850*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	10.00	1	1/19/2016 10:30	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.280*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 10:30	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.018	1	1/19/2016 10:30	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	2.6	1	1/19/2016 10:30	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016

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(440) 449-2525, Fax: (440) 449-8585

## ANALYTICAL REPORTS

SAMPLE CODE: 349706

1/22/2016

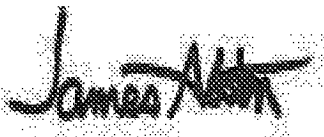
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	15	1	1/19/2016 10:30	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.520	1	1/19/2016 10:30	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166

(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349707****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw. Filtered through Purifier

**Source City:** Flint

**Source State:** MI

**Date/Time Received:** 1/19/2016 15:00

**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	ND	1	1/19/2016 10:30		1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30		1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	0.002	1	1/19/2016 10:30		1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	2.2	1	1/19/2016 10:30		1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30		1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	ND	1	1/19/2016 10:30		1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	7.10	1	1/19/2016 10:30		1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	1	1/19/2016 10:30		1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.006	1	1/19/2016 10:30		1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	ND	1	1/19/2016 10:30		1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016

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# National Testing Laboratories, Ltd

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## ANALYTICAL REPORTS

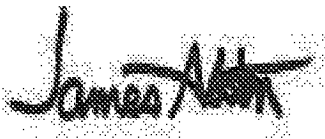
SAMPLE CODE: 349707

1/22/2016

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	32	1	1/19/2016 10:30		1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166

(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349708****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** Flint River Water (Flint River - Downtown)**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	0.12	1	1/19/2016 11:00	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	79.0	1	1/19/2016 11:00	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	0.002	1	1/19/2016 11:00	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	0.280	1	1/19/2016 11:00	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	28.00	1	1/19/2016 11:00	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.032	1	1/19/2016 11:00	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 11:00	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	3.3	1	1/19/2016 11:00	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016

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## ANALYTICAL REPORTS

SAMPLE CODE: 349708

1/22/2016

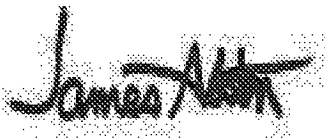
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	34	1	1/19/2016 11:00	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.007	1	1/19/2016 11:00	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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ANALYTICAL REPORTS

SAMPLE CODE: 350014

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #1  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	520*	A6 1	1/27/2016 13:53		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	66*	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350015

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #2 Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	2	A6	1	1/27/2016 13:53	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350016

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: Flint River (Raw) #3  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26

Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

"ND" This contaminant was not detected at or above our lower reporting limit (LRL)

"NA" Not Analyzed

"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	390	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.  
Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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**ANALYTICAL REPORTS**

**SAMPLE CODE: 350017**

**2/4/2016**

**Customer:** JSN Architecture  
 Joseph Novitsky  
 1755 Royal Ave  
 Berkley, MI 48072

**Source:** Flint River (Purified) #4  
**Source City:** Flint  
**Source State:** MI

**Date/Time Received:** 1/28/2016 08:26

**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND"** This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA"** Not Analyzed
- "Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Microbiologicals</b>										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

- A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.
- Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350018

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #5  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1200*	A6 1	1/27/2016 15:08		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350019  
2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #6 - Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	<1	1	1/27/2016 15:10		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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---

**From:** BrownleeJ@michigan.gov  
**Sent:** Thursday, February 18, 2016 9:25 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: Vendor inquiries (2/2)  
**Attachments:** FW 4.zip; ATT00001.htm

Sent from my iPhone

Begin forwarded message:

From: "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
To: "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Subject: FW: Vendor inquiries (2/2)

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

**From:** GOV Scheduling  
**Sent:** Monday, February 01, 2016 12:13 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint Water Help  
**Attachments:** Cover letter And Resume With Attachments for Gov Snyder 2016.pdf

---

**From:** Edward G. Wenz, Jr. [<mailto:edward@leadrenovatortraining.net>]  
**Sent:** Monday, February 01, 2016 10:29 AM  
**To:** GOV Scheduling <[GOVScheduling@michigan.gov](mailto:GOVScheduling@michigan.gov)>  
**Subject:** Flint Water Help

Feb 1, 2016

Governor Rick Snyder -

I am writing this letter and have attached a cover letter and resume for myself for your review. I would like to help you, City of Flint, Flint residents, & the State of Michigan with this Flint Lead Water issue.

I feel with my unique background, knowledge, & skill set I would be helpful in working to find the right resolution to the crisis. I feel with my resume, I will be able to assist in all areas of the work that needs to be done. And come up with and manage the proper implementation of a "fix" to this issue. There are alot of people helping you but I'm not sure with the knowledge that I possess from the construction, lead inspections/risk assessments, water testing, housing rehab, water & sewer infrastructure, and safety needs of the public and workers.

Please feel free to contact me at anytime.

Sincerely,

Ed Wenz

*Edward G. Wenz, Jr.*  
Contractors Training Institute, LLC  
Lead Renovator Training, LLC  
CTL - Consulting, Testing, & Inspections, LLC  
Michigan Builders Training & Builders Con-Ed  
248-698-6900 ~ Fax# 248-694-2001  
Construction/ Environmental Consulting & Education

# Edward G. Wenz, Jr.

February 1, 2016

To Governor Rick Snyder:

I am writing in letter to offer my services to help you, the State of Michigan, & the residents of Flint my professional services and background to help with this water situation that has impacted the community.

I am currently an State of Michigan and EPA Trainer for the new RRP Rule, a State of Michigan Trainer for Lead Abatement (Worker, Supervisor, Inspector, & Risk Assessor), State of Michigan Trainer for Asbestos (Supervisor & Inspector), and State of Michigan Trainer for builders / contractors handling pre-lic classes, con-ed, osha, mold, & asbestos awareness. I am the owner of a Michigan Proprietary School for Builders Courses. I also own CTI – Consulting, Testing, & Inspections, which is a firm that inspects home, write rehab specifications, lead lead inspections & lead risk assessments, asbestos surveys, federal programs management, and more.

I previously worked with City of Pontiac Federal Programs as the Federal Programs Construction Manager. I handled many areas for the Federal Programs including, demolition of homes for emergency & scheduled programs, water/sewer/electrical/gas disconnects with a survey of all to document for future use, homeowner rehab, NSP rehab, board up, lawn mowing & debris clean ups, spec writing, training of contractors for the city, RFP's for many programs, and much more.

I have previously worked for Macomb County Planning Dept where I was a Rehabilitation Specialist with the Macomb County Rehabilitation Program, and I feel that my background was well suited for this position. In my position as a Rehabilitation Specialist / Building Inspector, I inspected homes for code violations, HUD HQS, and deficiencies in the building, plumbing, hvac, and electrical trades. I also write up specifications and bid out new rehabilitation projects, as well as monitor, inspect work upon completion, and process billings for housing rehabilitation projects. I wrote the county rehab contractor manual and designed and wrote a new inspection report, along with making it a computer application.

In addition to my experience a contractor, trainer, and with Pontiac & Macomb County, I have a residential builder's license, I hold licenses with the State of Michigan as a Lead Supervisor and Lead Inspector / Risk Assessor, Asbestos Supervisor Contractor, Asbestos Inspector, Mold Remediation Specialist, Certified Indoor Air Quality Tech, and I have owned my own construction firm since 1995. The construction company I owned had 50 employees contracting work in new construction, remodeling, additions, fire restoration, demolition, & commercial contracting. My firm had contracted installation programs for Home Depot and Lowe's, along with commercial work in retail, commercial, and institutional buildings in various counties. I previously sat on the Zoning Board of Appeals for St. Clair Shores, and I also have worked with local attorneys as an expert witness for homeowners with legal matters regarding construction.

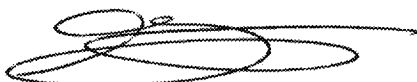
I would consider it a great opportunity to work for / with the State with my skills and unique background that very few have with the well rounded knowledge of all aspects of the issues and how to fix, bid, & manage for the Flint Water issue. I would like to provide any other details as to my background & knowledge and/or the fix as I see it at your request. I will make time to meet with you anytime.

Thank you for taking the time to consider my resume and application to help. I look forward to speaking with you or your department.

References:

- More available upon request

Thank you for your time and consideration,



Edward G. Wenz, Jr.  
Enclosure – Resume

# Edward G. Wenz, Jr.

---

## **EMPLOYMENT OBJECTIVE:**

To utilize my past experience & knowledge to gain personal growth & advancement in the construction field.

## **WORK EXPERIENCE:**

2010 – Present **Contractors Training Institute, LLC**

**Lead Renovator Training, LLC ~ Member / Trainer / Instructor**

**Michigan Builders Training, LLC & Builders Con-Ed, LLC**

**CTI – Consulting, Testing, & Inspections, LLC**

- Trainer for EPA Certified Renovator course, Mold Remediation, OSHA Safety, Asbestos
- Trainer of Lead Abatement Supervisor, Lead Inspector, Risk Assessor, Worker
- Trainer / Instructor for Michigan 60 Hr Builders Pre-Licensure Class & Builders Con-Ed
- Trainer for Asbestos Supervisor Contractor & Inspector Courses
- Built Online School for Contractor Training, Along with specialty websites & phone apps
- CTI-Consulting, Testing, & Inspections division of firm handling lead, asbestos, mold, & project management
  - Work for Macomb County Rehab program as rehab specialist, spec write, inspector
  - Work for Habitat For Humanity Macomb & Detroit as spec writer, rehab specialist, inspector, & lead inspector/lead risk assessor

1994 – Present **Winner Investment, Inc. ~ Owner**

- Established a property management company that currently owns and manages six (6) residential rental units throughout Macomb County. This firm owned and managed over 38 properties including commercials and residential apartments in previous years.
- Also, DBA Michigan Inspection Consultants, LLC; inspection & consulting services

May 2011 – Feb 2012 **City of Pontiac Federal Programs**

- Construction Manager / Rehab Specialist for Federal Programs HUD Grants & NSP
- Inspections of residential homes for code and write specification for all work, HOME Funds Implemented Programs for: Emergency Board-Up, Lawn ordinance mowing, Dumping clean-ups,
- Coordinated restart of NSP program for City to meet all HUD requirements, completed work that was on hold
- Demolition Program for Emergency & Scheduled demos, Coordinated all disconnects for water/sewer/electrical/gas for Michigan Land Bank NSP2 & CDBG. Along with surveying all water & sewer lines for mapping utilities for future use.

2006 – 2010 **Mini Dumpsters, LLC ~ Member**

- Established a waste & recycling firm = SOLD Firm
- Company was established with one dump trailer, when sold the business had 30 trailers, 18 roll off boxes, 3 trucks, 2 frontload trash trucks with revenue of \$500K per year

2003 – 2008 **~ Macomb County Rehabilitation Specialist I**

**Dept. of Planning & Economic Development**

- Performed functions of Rehabilitation Specialist / Building Inspector
- Managed rehabs for Lead Inspection & Lead Risk Assessments on work for county.
- Designed and wrote county housing inspection report
- Wrote county rehab program contractor manual
- Trained contractors in work practices, lead work, & processes

1998 – Present **At Home Services, LLC ~ Owner**

- Established general contracting company for residential work. *Inactive.*

2003 – 2007 **RW Builders, LLC ~ Member**

- Established building & development partnership firm, building and renovating homes in Macomb, Oakland, & Wayne Counties. Company was dissolved as of December 2007.
- Built new homes as in fill lots in various cities
- Rehabbed homes in various city for flips

1996 – 2003      **Winner Properties, Inc. ~ Owner**

- Established a full service construction company, diversifying in new home construction, commercial build outs, gymnasium wood floor installs, rehabilitation work, design & build, home inspections, insurance reconstruction, lead paint and asbestos abatement. Trained employees' in work practices, install techniques, lead safe work practices, work safety training, fire safety, hazard communication plan, respiratory program, etc...
- Winner Properties was the largest Home depot installation firm in Michigan and surrounding states handling 33 stores in Michigan for door installation program. Our firm also wrote the Anderson Window install program for Home Depot.
- Winner Properties also worked for Home Depots EXPO Design Center Stores. Our firm handled 3 stores for installation of kitchens, bathrooms, tile, stone, complete remodel work and design build work.
- Winner Properties was the largest Lowes installation firm handling 6 stores in Metro Detroit market. Our firm handled the door installation program for all 6 stores, handled the plumbing install program for 3 stores, and handled installation of tile & cabinets for 3 stores.

**Other Work Experience:**

- Licensed Associate Realtor
- Truck driver to waste hauling firm - Went on to open my own business
- Owner of Towing & Recovery Service – Built & Established Company & then Sold company
- Owner of Spring & Suspension Shop – Built & Established Company & then Sold company
- Machine Repair Technician for Expert Machine Repair – Went out to open my own business

**SKILLS, LICENSES, CERTIFICATIONS:**

- Licensed Builder
- Certified Lead Abatement Supervisor
- Certified Lead Inspector & Lead Risk Assessor
- Certified Licensed Asbestos Supervisor Contractor
- Certified Licensed Asbestos Inspector
- State of Michigan Certified Lead Trainer (Worker, Supervisor, Inspector, Risk Assessor)
- State of Michigan Certified Asbestos Trainer (Supervisor / Contractor & Inspector)
- US Environmental Protection Agency EPA RRP Trainer
- State of Michigan Certified Builders Pre-License Trainer
- State of Michigan Certified Real Estate Continuing Education Trainer
- State of Michigan Certified Insurance Adjuster Continuing Education Trainer
- Trainer in OSHA, Mold, Lead, Builders Initial & Con-Ed Classes, Asbestos
- Lifetime Approval By State of Michigan as Trainer for State Building Officials, Inspectors, & Plan Reviewers
- OSHA 10 Hour Trained
- Certified Mold Remediation Specialist
- Certified Home Inspector
- Former Realtor
- Driver License = CDL-A – endorsements C, CY, NT

**VOLUNTEER AND COMMUNITY INVOLVEMENT:**

- Michigan HBA Remodelers Council = Presenter / Trainer
- Michigan Historical Preservation Network = Trainer / Consultant
- Member of St. Clair Shores Zoning Board of Appeals = *Previous*
- Compassionate Ministries / Building Construction Advisor = *Previous*
- Habitat For Humanity Macomb – Construction Supervisor = *Previous*
- Housing Opportunities for Macomb = *Previous*



## **Federal Programs Experience in HUD / NSP Work**

### **Macomb County Rehab Program – Rehabilitation Specialist**

- Inspect homes for rehabilitation program: building, plumbing, hvac, & electrical
- Inspect homes for both CDBG & HOME Funds for Code & HQS Standards
- Wrote the County Housing Rehabilitation Contractors Manual
- Updated the County Housing Rehab Manual
- SHPO Historical Section 1106 Clearances
- Environmental Reviews
- Wrote Specifications for work on homes – bring to code & emergency repairs
- Wrote specifications for lead abatement work / designed jobs
- Wrote estimates for all specifications on projects
- Ordered Lead Inspection & Risk Assessments as needed for projects
- Assessed projects for Lead Hazards and wrote specification for such work
- Met with homeowner to go thru work specifications and answered questions
- Inspected progress of work & final inspection of all work to meet specifications
- Completed final work on all homes and processed payments
- Wrote a complete rehab specification guide and put it into place for the County
- Designed a rehab tracking process and write up program for the County
- Ran projects for over 50 homes per year
- Projects ranged from rehabilitation, demo, and new build
- NSP Program: Worked to get basic acquisition and rehab outline established

### **City of Pontiac Federal Programs – Construction Manager**

- Wrote City Housing Rehabilitation Contractor Manual
- Updated / Revised the City Housing Rehab Manual
- Reviewed and worked for updating the Program Procurement Manual
- Wrote a complete rehab specification guide and put it into place for the City
- Designed a rehab tracking process and write up program for the City
- Organized and managed utility disconnects for demolition work. NSP & CDBG for City & NSP2 for MI Land Bank
- Worked with city on all water & sewer disconnects to be located and documented
- Organized and administered RFP's for: Rehab Contractors, Demo Contractors, NSP Developers, Realtor Services, Appraiser Services, Board Up Contractors, Lawn & Debris Clean-Up Contractors
- Bid Projects: Emergency Board Up Program, Lawn Mowing & Debris Clean Up Program, Rehab Program, Emergency Demo Program, 2012 Winter Demo Program, Asbestos Inspections, Lead Inspection & Risk Assessment Services
- Signed contract for Board Up Program & Managed over 350+ homes for board up
- Signed contract for Lawn & Debris Clean Up with 84 homes mowed, 1600 yards of debris removed
- Signed contract for Asbestos Inspections and administered over 200 sites
- Signed contract for Lead Inspection & Risk Assessment Services
- Inspected and wrote specs for 14 homes to satisfy HUD findings as a requirement to meet repairs for HUD
- Signed contracts for rehabilitation projects to repair homes required by HUD to clear findings – 14 sites
- Wrote Specs & Bid Emergency Demo Program; signed contracts with 6 contractors for work – demolished 20 homes in 10 days, completed work of 60 homes in 30 days
- Wrote Specs for 2012 Winter Demo Program – Pre-Bid Meeting held on 1/20 with 26 contractors, project is 150+
- Wrote / Revised Energy Upgrade specification for Lighthouse Path Bldg- Commercial Site
- Helped manage all SHPO applications for Historical Section 1106 Clearances on: Rehab & Demo work
- Worked with SHPO to add additional products to be listed as approved materials by State Architect to help have better specifications for rehab of homes.

- NSP Program:
  - Administration for: Acquisition Rehab, Demo, New Build
  - Managed & Signed for sale of properties for City to Developer
  - Administered & Managed all utility retirements / disconnect for Pontiac & Michigan land Bank
  - Revised specifications for NSP Developers to establish higher specifications = expectations
  - Worked to modify and help contractors get NSP 1 Program work done as the system was on hold
  - NSP Developers were guided to get projects back on track and now have done 19 homes in 6 months
  - Pontiac was on NSP slow spending list and now Pontiac is one of S/E Michigan top producers for HUD
  - City of Pontiac became top producing NSP Community in the last 6 months since Ed managed construction processes
  - Managed a huge Historical case and got clearance from SHPO in 30 minutes – 224 Ottawa, Pontiac
  - Managed Historical Sec 1106 Clearances for homes on NSP Program
  - Organized and managed RFP for Rehab Contractors for NSP 3 Program
  - Organized and managed RFP for Realtor Services for NSP Program
  - Wrote and managed RFP for Appraisal Services for NSP Program & sale of CDBG Property
  - Wrote & Bid out Specs for Alarm Systems on all NSP homes – Signed deal for developers
  
- CDBG & HOME Funds
  - Inspect homes for both CDBG, HOME Funds – Code & HQS Standards
  - SHPO Historical Section 1106 Clearances
  - Wrote specifications for work on homes – bring to code & emergency repairs
  - Wrote estimates for all specifications on projects
  - Ordered Lead Inspection & Risk Assessments as needed for projects
  - Met with homeowner to go thru work specifications answered questions
  - Inspected progress for work & final inspection of all work to meet specifications
  - Completed final work on all homes and processed payments

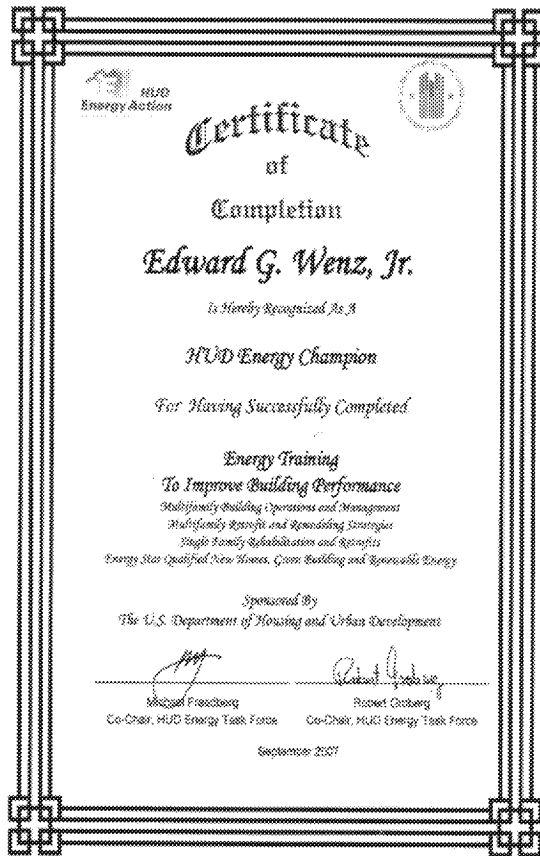
## Attachments – A

- Copy of Michigan Builders License

<small>ROCK SWYDER GOVERNOR</small>	<b>STATE OF MICHIGAN</b>	<b>L245595</b>
<b>DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS</b>		
<b>CORPORATIONS, SECURITIES &amp; COMMERCIAL LICENSING BUREAU</b>		
<b>RESIDENTIAL BUILDER LICENSE</b>		
EDWARD GILBERT WENZ, JR 8756 TRENTON DR WHITE LAKE MI 48386		
<small>PERMANENT I.D. NO. 2101186904</small>	<small>EXPIRATION DATE 05/31/2017</small>	<small>AUDIT NO. 2801332</small>
<small>THIS DOCUMENT IS ONLY VALID UNDER THE LAWS OF THE STATE OF MICHIGAN</small>		

<small>ROCK SWYDER GOVERNOR</small>	<b>STATE OF MICHIGAN</b>	<b>L231721</b>
<b>DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS</b>		
<b>CORPORATIONS, SECURITIES &amp; COMMERCIAL LICENSING BUREAU</b>		
<b>RESIDENTIAL BUILDER COMPANY LICENSE</b>		
- O. O. - EDWARD GILBERT WENZ, JR      INDV#: 2101186904		
WINNER INVESTMENT INC DBA/ MICHIGAN INSPECTION CONSULTANTS 8756 TRENTON DR WHITE LAKE MI 48386		
<small>PERMANENT I.D. NO. 2102185620</small>	<small>EXPIRATION DATE 05/31/2017</small>	<small>AUDIT NO. 2789605</small>
<small>THIS DOCUMENT IS ONLY VALID UNDER THE LAWS OF THE STATE OF MICHIGAN</small>		

## Attachment ~ B: Additional Training Certificates



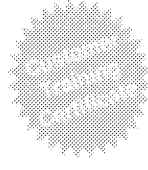
CUSTOMER TRAINING

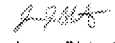
### Radiation Safety and Operation of Niton XRF Analyzers

This is to certify that  
**Edward Wenz**  
has successfully completed the one day Thermo Fisher Scientific Niton Analyzer Manufacturer's Training Course. The topics of this course include radiation safety, monitoring, device operation, and machine maintenance of the Niton XRF Analyzer.

(CIH's - The ABIH Awards 1 CM point, approval # 08-354)

Course date: May 5, 2011  
Location: Romulus, MI  
Certificate Number: 154700380000017rVh0

  
Sophie Ling  
Radiation Safety Training Coordinator

  
James Blute, CHP  
Manager of Health and Safety

Part of Thermo Fisher Scientific

Thermo SCIENTIFIC



## Attachment ~ B: Additional Training Certificates



### EMSL ANALYTICAL, INC.

Certifies that

**Edward Wenz**

Has Completed Training In

**Mold, Indoor Air Quality and IH Sampling**

EMSL Certificate No. 70016695

Course Date: 98/11/2015

Granted: 98/11/2015

Sponsored by:

EMSL Analytical, Inc.  
200 Route 130 North  
Cinnaminson, NJ 08077  
Phone: (800) 220-3675  
Fax: (856) 786-5875  
[www.emsl.com](http://www.emsl.com)

**Jason Dobranic, Ph.D.**

Vice President of Microbiology and Life Sciences

Environmental, Mold, Bacteria, IAQ, Asbestos, Lead, Forensic and Materials Testing Since 1981



### EMSL ANALYTICAL, INC.

#### Credits and Continuing Education

Indoor Air Quality/Industrial Hygiene Workshop

on

8/27/15

ABIH-Compliant  
ACAC - 8.0 Credits  
BOMI - 8.0 Credits  
FL DBPR - 7 Credits  
HCRC - 1.0 Credit  
Inter NACHI - 8.0 Credits  
NAHI - 8.0 Credits  
ASHI - 8.5 Credits

CRBOH - 1 maintenance point  
NYS Dept of State Home Inspectors  
CRBOH - 1 MP  
NJ Site Remediation Professional Licensing  
Board - 4 TCEs  
NEHA - 6.5 CEC's  
TN Home Inspector Licensing Board - 8 hours

CAHPI  
OAH - 7 CEUs  
CAHPI/BC - 7 MRCs  
CAHPI Alberta - 7 MRCs  
Approved by Florida State  
DBPR 7 Credit Hours

Certificate # 70016695

Issued to: Edward Wenz

Environmental, Mold, Bacteria, IAQ, Asbestos, Lead, Forensic and Materials Testing Since 1981

## Attachment ~ C: Additional Certificates

United States Environmental Protection Agency

This is to certify that

Lead Renovator Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices pursuant to 40 CFR Part 402.207 in the following discipline:

Renovator: Professional (Lead-based)

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: October 27, 2015

NOT EPCB-100000-1-010  
Accreditation # OCT 14 2015  
Issued On

*Tony Bontis, acting for*  
Mark Klem, Chief  
Chemicals Management Branch

United States Environmental Protection Agency

This is to certify that

Lead Renovator Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices pursuant to 40 CFR Part 402.207 in the following discipline:

Renovator: Professional (Lead-based)

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: JUL 11, 2015

NOT EPCB-100000-1-010  
Accreditation # JUL 07 2015  
Issued On

*Mark Klem*  
Mark Klem, Chief  
Chemicals Management Branch

This is to attest that

has satisfactorily met the requirements of the Michigan Lead Abatement Act of 1995, and is hereby accredited as a

**Lead Renovator Training**

LEAD TRAINING COURSE PROVIDER

TCP number T-0049

This accreditation entitles the named persons to the rights and privileges afforded by the Act, as well as the authority to offer and provide the following training courses leading to certification of individuals engaged in regulated lead-based paint activities in the State of Michigan until August 31, 2016

Worker Initial	Worker Refresher	Supervision Initial	Supervision Refresher	Inspector Initial
Inspector Refresher	Risk Assessor Initial	Risk Assessor Refresher		

**MDHHS** Health  
Environment  
Services

*Michael J. Bontis*  
Manager, EPH

August 21, 2015  
Date

20140001-0000  
Authority: P.A. 300 of 1995, as amended

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
CORPORATIONS, SECURITIES & COMMERCIAL LICENSING BUREAU

L263570

PROPRIETARY SCHOOL  
LICENSE

MICHIGAN BUILDERS TRAINING, LLC  
2525 AVON INDUSTRIAL DRIVE  
ROCHESTER HILLS MI 48309

PCB-ENVY 1.0 - 60  
8604000877

10/15/2015 2015  
06/30/2015

2017-00  
2309466

THIS DOCUMENT IS NOT A MODEL  
DO NOT REPRODUCE OR DISTRIBUTE

Sponsor Number  
744307

Issue Date  
11/25/2015

Expiration Date  
12/31/2015

State of Michigan  
Department of Licensing and Regulatory Affairs

Michigan Builders Training, LLC

has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1995, as amended, and Section 206 of Title II of the Toxic Substances Control Act to provide the following courses:

Contractor/Supervisor Initial\* Inspector Refresher\*  
Contractor/Supervisor Refresher\*

1312

United States Environmental Protection Agency

This is to certify that

Lead Renovator Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices pursuant to 40 CFR Part 402.207 in the following discipline:

Renovator: Professional (Lead-based)

In the Jurisdiction of:




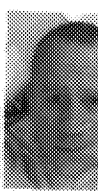


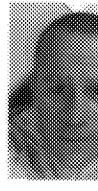
All EPA Administered States, Tribes, and Territories


This accreditation is valid from the date of issuance and expires: October 27, 2015

NOT EPCB-100000-1-010  
Accreditation # OCT 14 2015  
Issued On

*Tony Bontis, acting for*  
Mark Klem, Chief  
Chemicals Management Branch

- Copy of Environmental Licenses

<b>Michigan</b> <b>Department of</b> <b>Community</b> <b>Health</b>		<b>Edward G. Wenz Jr.</b> <b>Lead Inspector/Risk Assessor</b> <b>Lead Supervisor</b> Cert. number <b>P-01130</b> Annual fee due by <b>March 31, 2016</b> <i>Appropriate refresher training and exam must be taken to renew this certification before <b>March 31, 2016</b></i>	
 <b>Healthy Homes Section</b>			
<div style="background-color: #cccccc; padding: 5px; text-align: center;"> <b>State of Michigan</b>          Department of Licensing and Regulatory Affairs          Michigan Occupational Safety &amp; Health Administration - Asbestos Program       </div>			
 <b>Edward G. Wenz, Jr.</b> 8756 Trenton Drive White Lake, MI 48386		 <b>Asbestos Inspector</b>  DOB: 01/08/1968	
<b>Accreditation Number</b> <b>A42527</b>		<b>Expiration Date</b> <b>04/05/2016</b>	
This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1986, as amended, to be accredited as an Asbestos Inspector.		Accreditation card is not valid if altered. <b>114768</b>	
<div style="background-color: #cccccc; padding: 5px; text-align: center;"> <b>State of Michigan</b>          Department of Licensing and Regulatory Affairs          Michigan Occupational Safety &amp; Health Administration - Asbestos Program       </div>			
 <b>Edward G. Wenz, Jr.</b> 8756 Trenton Drive White Lake, MI 48386		 <b>Asbestos Contractor/Supervisor</b>  DOB: 01/08/1968	
<b>Accreditation Number</b> <b>A42527</b>		<b>Expiration Date</b> <b>04/05/2016</b>	
This individual has satisfactorily met or exceeded the requirements of Section 206 of the Toxic Substances Control Act to be accredited in the above discipline.		Accreditation card is not valid if altered. <b>114770</b>	



**Occupational  
Safety and Health  
Administration**

21-004444959

This card acknowledges that the recipient has successfully completed a  
10-hour Occupational Safety and Health Training Course in  
**Construction Safety and Health**

EDWARD WENZ, JR.

---

**Bryan Renaud**

(Trainer name – print or type)

**06/12/2013**

(Course end date)

---

**Michigan Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety and Health Administration  
Consultation Education and Training Division**

This is to recognize that

EDWARD WENZ, JR.

Has a completed a 10-Hour MIOSHA course in  
**CONSTRUCTION SAFETY AND HEALTH**



**Bryan Renaud**

(Instructor)

Approval #  
AP 147

**6/12/13**


(Date)

MIOSHA  
Training Institute

---

MIOSHA  
Michigan Occupational Safety and Health Administration



Macomb  
Community College

---

The MIOSHA Training Institute

takes pleasure in presenting this

CERTIFICATE OF ATTENDANCE

to

EDWARD WENZ, JR.

for your active participation in

MIOSHA Construction 10-Hour Course

awarding 1 CEU / 10 Contact Hours

JUNE 12, 2013

PATRICIA DUPRESNE

Consultant, MIO Training Division

BRYAN RENAUD

Trainer, MIO Training Division

This course is approved for recognition by the Michigan Department of Licensing and Regulatory Affairs, Michigan Occupational Safety and Health Administration, for the purpose of awarding continuing education credit.

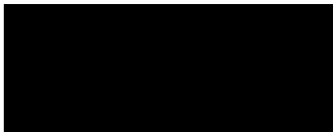


RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
BUREAU OF CONSTRUCTION CODES  
IRVIN J. POKE  
DIRECTOR

STEVEN H. HILFINGER  
DIRECTOR

April 2, 2012



**\*\*Lifetime Instructor Approval\*\***

Dear Mr. Wenz:

Your application to renew your Instructor Approval has been processed by the Bureau of Construction Codes.

Pending review by the Construction Code Commission, the Bureau of Construction Codes has been granted permission to renew your approval under the following conditions:

1. Instructor standards as defined in the Rules for Act 54, 1986 are maintained.
2. Approval is granted indefinitely for the following categories: Administration, Communication, Plan Review, and Building (Specialty and Technical specific to lead, asbestos and mold related subjects).
3. The commission may withdraw the approval of an instructor when the approval was issued in error or was issued on the basis of incorrect information or when the instructor is found to be in violation of the rules.

The standards set forth in the rules for Act 54, 1986, state that program providers must "establish permanent records of student activities, including course title, and student attendance." Instructors have the responsibility for certifying attendance records. All participants must attend the entire program to receive credit.

**PLEASE NOTE:** Training programs must be approved by the Bureau of Construction Codes before registrants will receive their credited attendance hours. Before conducting training programs, a completed Education and Training Programs Approval Application (Form BCC-1052) must be submitted and approved by the Bureau of Construction Codes. Our attendance form can be found on our website at [www.michigan.gov](http://www.michigan.gov) under Forms then Building Division.

Instructor Identification Number: 2019

Sincerely,

*Kary L. Dare*

Kary L. Dare  
Building Division

KLD/ld

*Providing for Michigan's Safety in the Built Environment*

LARA is an equal opportunity employer  
Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.  
P.O. BOX 30254 • LANSING, MICHIGAN 48908  
[www.michigan.gov/bcc](http://www.michigan.gov/bcc) • Telephone (517) 241-8302 • Fax (517) 241-9570





RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
LANSING

STEVE ARWOOD  
DIRECTOR

February 15, 2013

Michigan Builders Training, LLC  
[REDACTED]

Dear Mr. Wenz:

RE: Sponsor #480

Your application as a sponsor for the 2013-2015 Calendar Years for real estate nondistance-learning continuing education has been approved. This approval begins on February 14, 2013 and expires on December 31, 2015. **The sponsor approval number above is important and must be referenced in ALL correspondence with the Department.** The following course(s) have been approved:

Course Name	Hours	"L" Course Number
Combo Lead, Asbestos, Mold Awareness	4hrs	M1474
OSHA Fall Protection	2hrs	M1475
EPA Certified Lead Renovator	4hrs	M1476
Mold Awareness -- What you should know	2hrs	M1477
OSHA Lead Awareness	2hrs	M1479
Asbestos Awareness	2hrs	M1478

This approval includes Edward Wenz as instructor(s).

A Schedule and Geographic Location of Classes BCS/LRE-004(01/09) must be submitted before you submit your verification of attendance. Sponsors must submit verification of attendance no later than 5 days after the completion of the course, per Rule 604(8).

Electronic filing of your continuing education course attendance roster file must be a tab delimited text file or an excel file that can be exported from any database you have.

You can find the Schedule and Geographic Location of Classes and Verification of Attendance excel spreadsheet on our website at [www.michigan.gov/bctestesting](http://www.michigan.gov/bctestesting) under the forms drop down menu. If you have any questions, please contact me at (517) 241-9231. Thank you for your cooperation.

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BUREAU OF COMMERCIAL SERVICES  
P.O. BOX 30018 • LANSING, MICHIGAN 48909  
[www.michigan.gov/lara](http://www.michigan.gov/lara)

FIS 414 (12/11) Department of Insurance and Financial Services

**Certificate Of Registration For A Continuing  
Education Program Of Study**

PSI  
Michigan CE  
3210 E. Tropicana  
Las Vegas, NV 89121

September 18, 2013

MICHIGAN BUILDERS TRAINING, LLC



Edward Wenz:

Pursuant to Section 1204a(1) to 1204c(6) of the Insurance Code of 1956, as amended, MCLA 500.1204a(1) to 500.1204c(6), the Agent Education Advisory Council or its designee has reviewed the course materials, curriculum, and instructor credentials submitted and recommends to the Director's representative that this program of study be registered:

Course Name: **UNDERSTANDING THE HAZARDS OF HOUSING - COMBO LEAD, ASBESTOS, & M**

Program of Study: **Property & Casualty**

Effective Date: **09-18-2013**

Number of Approved Hours: **3**

Provider Number: **0979**

Life/Health **0**

Property/Casualty **3**

Presentation Method: **Classroom**

Course Number: **63228**

National Designation Program: **No**

Expiration Date: **09-18-2015**

By the granting of this Certificate of Registration, the Director's representative approves the recommendation. The Director may, after Notice and Opportunity for a Hearing, withdraw the registration of a program of study, which does not maintain standards as determined by the Director for the protection of the public. Sales/Marketing hours = 0.

If you disagree with our decision, you may appeal by providing 2 copies of the requested information within 30 days of the date of this letter without any additional fees. However, if you appeal our decision, you must return this document and you may not offer this course until a final disposition is granted.

If you need to contact PSI, please email [MIINSURANCE@PSIEXAMS.COM](mailto:MIINSURANCE@PSIEXAMS.COM).

Sincerely,

PSI Continuing Education Unit



Michigan Department of Insurance and Financial Services

DIFS is an equal opportunity employer/program.

Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

Visit DIFS online at: [www.michigan.gov/difs](http://www.michigan.gov/difs) Phone DIFS toll-free at: 877-699-6442

---

**From:** Stoken, Laura (GOV)  
**Sent:** Monday, February 01, 2016 2:39 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Disaster Recovery Resilience Program

For your determination

---

**From:** Norman Stoerr [<mailto:nstoerr@aidrc.com>]  
**Sent:** Monday, February 01, 2016 2:36 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Cc:** Norman Stoerr <[nstoerr@aidrc.com](mailto:nstoerr@aidrc.com)>  
**Subject:** Disaster Recovery Resilience Program

Good afternoon Lt. Governor Calley,

I'm contacting you to provide you information concerning Adjusters International's Disaster Recovery Resiliency Program.

In 2010, The Department of Homeland Security (DHS) identified resiliency as a national priority. DHS intended to reduce the risk to critical infrastructure, public health and safety by fostering development of preparedness capabilities able to recover from naturally or man-made disasters to the nation's states and cities. Presidential Policy Directives 8 and 21 fully endorse this high level initiative.

Adjusters International (AI) can provide you a Disaster Recovery Resilience Program. Our web-based interoperable, multiple activation program, will assist the state in building a pro-active, readiness, response, recovery, and mitigations program for your state and counties.

AI's program can provide you a detailed risk analysis of the state's resources. Our program will also monitor your resource allocation of personnel, equipment and facilities not only on a daily basis, but also during an emergency situation or activation. The program provides this support using its GIS and real time situational analysis capability. AI's Disaster Recovery Resiliency Program will also guide a municipality, city or county from the initiation of an emergency response, through the closeout of a disaster declaration.

At your convenience, we would like the opportunity to speak with you and or members of your staff to further explain the Disaster Recovery Resilience Program.

Please contact me on the number or e-mail listed below to schedule a GoToMeeting. We will show you some features and further explain the benefits of our program.

Thank you very much sir,

*Norman T. Stoerr  
Disaster Recovery Resiliency Program  
Adjusters International DRC  
125 Wolf Road-Suite 214  
Albany, New York 12205  
Cell: 716-432-9414  
E-mail: [nstoerr@aidrc.com](mailto:nstoerr@aidrc.com)*



C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

January 29, 2016

Honorable Rick Snyder, Governor Michigan

Honorable Dr. Karen Weaver, Mayor

Honorable Elder Patrick W. Sanders, Pastor New Jerusalem Full Gospel Baptist Church

Greetings,

One of the most forgotten tools in optimizing effective public health strategies is Risk Communications. C. Edwards Concepts Public Health and Development Consulting LLC a nationally recognized leader in comprehensive Public Health consultation is fully qualified and experienced in multiple areas of Risk Communication Disease Intervention and Community Health. Since 2002 we have provided design, development and implementation services for local state and federal governments, non-governmental organizations, and community based organizations, and academic institutions. I am writing in hopes of securing an opportunity to discuss the provision of services for Public Health Consulting including but not limited to Education Awareness and Risk Reduction relative to lead contaminated water in Flint Michigan.

In the area of Risk Communication we have developed epidemiology influenced programming for disease intervention, risk assessment and risk reduction counseling testing referral and health services navigation.

From a strategic platform of Outreach and Engagement we have affected communities of color and beyond with measurable health outcome improvements by employing culturally and population sensitive strategies for Community Planning Health Promotions and Health Protection for successfully implementing Community Health initiatives.

In the area of Environmental Health our founding director is an Environmental Health Policy major and graduate of Tulane University School of Public Health and Tropical Medicine. In addition to her own studies she has also served as a Visiting Professor at the University of Nevada Las Vegas in the Division of Environmental Studies instructing Environmental Impact Analysis, Survey of the Environment, and Environmental Science. This serves as the foundation for both the experience and the expertise we have gained in the promotion of Health Safety and Environmental practices. We have developed and implemented worker safety training for Environmental Remediation projects licensed in the states of Louisiana and Nevada and in October 2013 entered into a three year contract with the University of Texas at Arlington Environmental Training Institute for the development of their curriculum for their Environmental Toxicology and Health Impacts course.

SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

The exceptional capacity and breadth of C. Edwards Concepts' skills and professional acumen is well documented. We are committed, well trained, and well able to help diverse stakeholders with varied interest. We have a working knowledge of the Clean Water Act and the Lead and Copper Rule which strengthens our ability to assess environmental and social risk factors in health related and environmental decision making processes.

Please afford me an opportunity to further discuss our organizations ability to serve as a valued resource for the City of Flint as it works to recover from this Public Health crisis. I will contact you on or before Tuesday February 2, 2016 as a follow up to this correspondence. Should you wish to reach me prior to that time you are welcome to do so at [REDACTED] or via email:

[REDACTED] Thanks so much for your consideration I look forward to speaking with you and serving your community. With kind regards I am ...

Committed to Health and Wellness

*Charlette Edwards*

Charlette Edwards, MSPH

SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

CHARLETTE EDWARDS, MSPH



**Summary**

For more than 25 years, I have been successfully involved in the work of problem resolution. Via Administrative remedy, I have worked with agencies under the auspices of the federal government applying rules codified by the Codes of Federal Regulation and Revised Statutes from various states. To this end, I have attained an uncanny ability to establish, develop and maintain outstanding rapports with persons from various backgrounds and diverse cultures. This ability is only surpassed by my never-ending commitment to (1). Facilitate the accomplishments of my organizations described goals (2). Provide assistance in designing strategic plans of action to satisfy determined objectives (3). Utilize and employ, clear, decisive, leadership abilities needed to complete specific task or multifaceted problems.

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Marshall, Texas  
**STEM Project Manager**

- Provide technical guidance and assistance relative to scientific program planning

SHREVEPORT, LOUISIANA

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HEALTH AND DEVELOPMENT CONSULTING LLC.

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- Evaluate student mastery of skills and competencies required by course outcomes.

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**Environmental Policy Intern**

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SHREVEPORT, LOUISIANA



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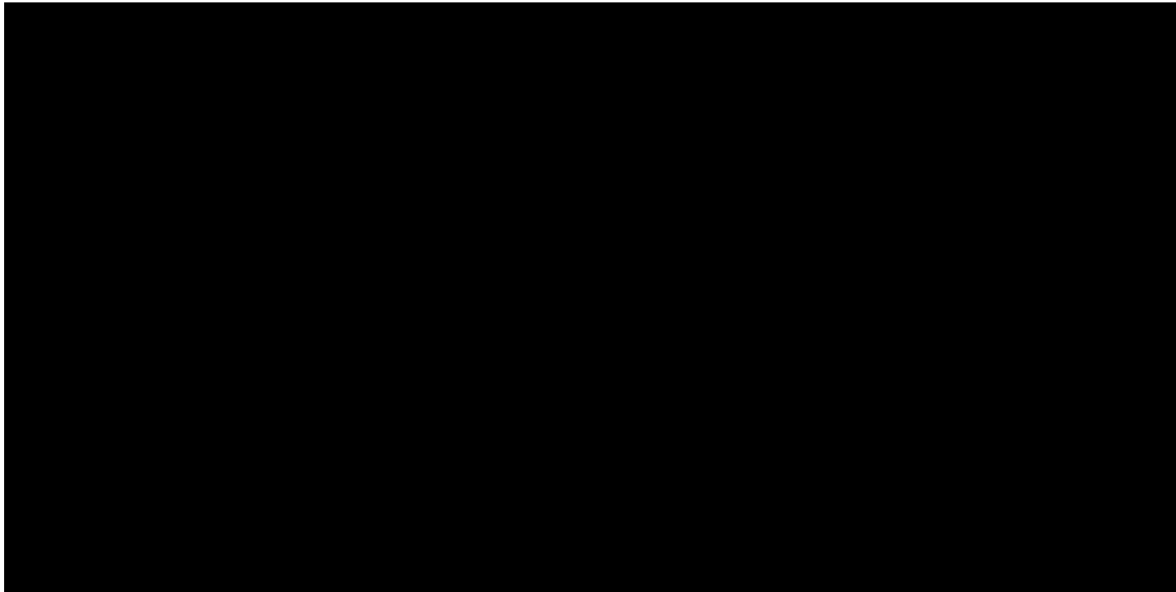
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C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.



CONTACT:

CHARLETTE EDWARDS, MSPH



SHREVEPORT, LOUISIANA

---

**From:** Stoken, Laura (GOV)  
**Sent:** Monday, February 01, 2016 2:45 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Public Health Consulting  
**Attachments:** C Edwards Concepts Portfolio Dr. Karen Weaver.pdf

For your determination

**From:** Charlette Edwards [<mailto:charletteedwards@gmail.com>]  
**Sent:** Monday, February 01, 2016 1:15 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>; [mayor@cityofflint.com](mailto:mayor@cityofflint.com); [elidersanders@att.net](mailto:elidersanders@att.net)  
**Cc:** [saunder1@michigan.gov](mailto:saunder1@michigan.gov); Charlette Edwards <[charletteedwards@gmail.com](mailto:charletteedwards@gmail.com)>  
**Subject:** Public Health Consulting

Greetings,

With more than 25 years of professional experience spanning Politics, Administrative Law, and Public Health, I write you in hopes of securing an opportunity to serve you and your community through the provision of Public Health, Community Outreach and Risk Communications services.

Your consideration is greatly appreciated. Charlette Edwards

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

January 29, 2016

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Honorable Dr. Karen Weaver, Mayor

Honorable Elder Patrick W. Sanders, Pastor New Jerusalem Full Gospel Baptist Church

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SHREVEPORT, LOUISIANA

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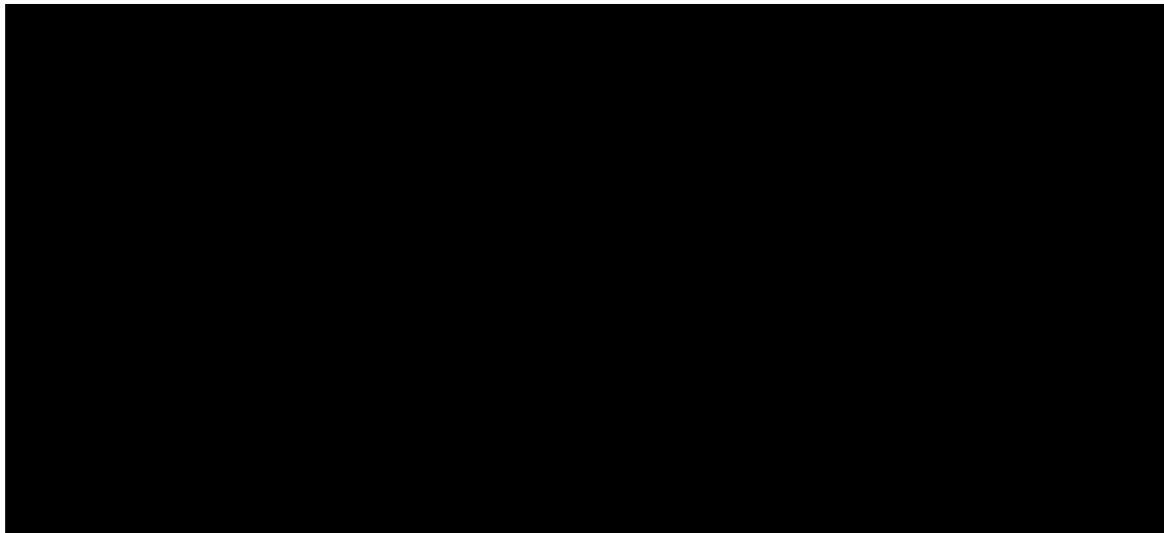


C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.



CONTACT:

CHARLETTE EDWARDS, MSPH



SHREVEPORT, LOUISIANA

---

**From:** Baird, Richard (GOV)  
**Sent:** Monday, February 01, 2016 11:10 PM  
**To:** Sachs, Tori (GOV); Creagh, Keith (DEQ)  
**Subject:** Fwd: Fw: Message from Dennis Cawthorne

These keep coming out of the woodwork. I wonder if we have/need someone from Keith's team separating the "wheat from the chaffe".

Rich

*Sent from my Verizon Wireless 4G LTE DROID*

----- Forwarded message -----

From: Dennis Cawthorne <[DCawthorne@kelley-cawthorne.com](mailto:DCawthorne@kelley-cawthorne.com)>  
Date: Feb 1, 2016 1:45 PM  
Subject: Fw: Message from Dennis Cawthorne  
To: "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>  
Cc: [rbaird003@hotmail.com](mailto:rbaird003@hotmail.com)

Rich:

I copied Vogel-Brown on our correspondence and here is their latest response. Note the second paragraph in which they again say their receiving a "Lab Report" would be helpful.

I presently have no vested interest in what Vogel-Brown is proposing but, from the outside, their potential ability to provide near term drinkable, clean water appears interesting and perhaps merits your team's interest, as well.

Dennis Cawthorne

---

**From:** Richard Brown <[rbrown@vogelandbrown.com](mailto:rbrown@vogelandbrown.com)>  
**Sent:** Saturday, January 30, 2016 5:22 PM  
**To:** Dennis Cawthorne  
**Subject:** RE: Message from Dennis Cawthorne

Dear Dennis,

This is great; now we need to come through. It sounds as though they've put a "Tiger Team" in place and just getting organized.

I have our engineers working on the concept that is focused on near term provision of drinkable, clean water. The lab report will ensure we're proposing the correct solution. There are several ways we can go about this, but I propose a Demo as a Proof of Concept to show that our system actually works.

We still have not been able to contact our large scale engineer/patent holder, but as soon as we do I'll let you know where we stand and a proposed schedule.

I'm also in contact with one of our associate contractors that does large scale epoxy coating of water pipes without have to remove or did them up. I should have more on them Monday.

Thanks for your support.

Richard Brown

---

**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, February 02, 2016 8:39 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** Company

For your determination

---

**From:** info [mailto:info@rcunique.com]  
**Sent:** Monday, February 01, 2016 8:02 PM  
**To:** Stoken, Laura (GOV) <Stokenl@michigan.gov>  
**Subject:** Re: Re: RE: Executive Office of the Governor

Dear Laura ,

I read online that the plumbers union were helping all the flint residents chaning faucets and intall filters .pls note that we can provide our equipment and technique surport for free for flint residents ,but we will need the plumber union to do the cleaning process ,waiting for your reply .thanks

2016-02-01

---

**Best regards!**

**Melia Tang**

**19295 E .Walnut Dr.North #H**  
**City of Industry.Los Angeles.CA 91748**  
**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: www.rcunique.com**  
**Email:info@rcunique.com**

---

发件人 : "info" <info@rcunique.com>  
发送时间 : 2016-02-01 11:41  
主题 : Re: RE: Executive Office of the Governor  
收件人 : "Stoken, Laura (GOV)" <Stokenl@michigan.gov>

抄送：

Dear Laura ,

Thanks for your reply .please take a looking in our website .we are speciallize in clean water pipes for residents area .with our technology ,each single house will take around 2-3 hours to clean up all the pipes lines .no need any repipe or construction .right now we still serve Los Angeles .but if you need our help .we can certainly send someone to Flint city to help you .i think you are aware that the faucet filter won't be working so well if the residents still have dirty water pipes .they still can't get clean water for shower and other daily usage water as well .

please take a look in a website .and let me know how we can help .thanks

[www.rcunique.com](http://www.rcunique.com)

2016-02-01

**Best regards!**

**Melia Tang**

**19295 E .Walnut Dr.North #H**  
**City of Industry.Los Angeles.CA 91748**  
**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: [www.rcunique.com](http://www.rcunique.com)**  
**Email:[info@rcunique.com](mailto:info@rcunique.com)**

---

发件人："Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>

发送时间：2016-02-01 11:31

主题：RE: Executive Office of the Governor

收件人："info" <[info@rcunique.com](mailto:info@rcunique.com)>

抄送：

Thank you Melia,

Please provide specific details so I can forward it to the appropriate person at the State Emergency Operations Center for review.

Thank you,

Laura

---

**From:** info [<mailto:info@rcunique.com>]  
**Sent:** Monday, February 01, 2016 2:22 PM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** Re: Executive Office of the Governor

Dear Laura,

Thanks for your reply ,the reason I am contacting you is that I think my company can help the governor with this issue in the final stage .for flint water,there are still few steps to solve the issue .first,you government need to provide clean water source ,second ,you will need to repipe or clean all those corroded water pipe lines .third stage ,we may be able to help with our technology .as we all know how long and how expensive it is gonna take for repiping for each house ,if the water pipes are not so corroded ,we are able to clean the water pipes for residents .in this way ,they will get your clean water .let me know how you think about it ,I am waiting for your further reply .thanks .

2016-02-01

---

**Best regards!**

**Melia**

**19295 E .Walnut Dr.North #H**  
**City of Industry.Los Angeles.CA 91748**  
**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: www.rcunique.com**  
**Email:info@rcunique.com**

---

**发件人 :** "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**发送时间 :** 2016-02-01 11:11  
**主题 :** Executive Office of the Governor  
**收件人 :** "Melia T" <[info@rcunique.com](mailto:info@rcunique.com)>  
**抄送 :**

Dear Melia T,

Thank you for your recent correspondence sent to Governor Rick Snyder. As a member of Governor Snyder's staff, I am responding on his behalf.

The health and welfare of Flint residents is the top priority. Governor Snyder's focus is on getting residents the help they need and the response they deserve. He wants to ensure Flint residents have access to clean, safe drinking water. Safe water as well as filters are being delivered door to door and are also available at designated locations throughout the city.

The Governor created a bipartisan, independent task force to review all state, city and federal actions concerning Flint water and making recommendations for the future. We're focused at solving the immediate problems, and also addressing long-term needs. The Flint Water Interagency Coordinating Committee will bring together a wide range of experts to work on long-term solutions to the Flint water situation and ongoing public health concerns affecting residents.

Governor Snyder declared a state of emergency, requested federal assistance, and activated the Michigan National Guard. President Obama granted an emergency declaration, providing \$5 million for water, water filters, filter replacements and water test kits. Congress can approve additional funding. The Governor had also requested from the President a major disaster declaration, which was denied based on the legal requirement that under the Stafford Act disaster relief is available only for natural events, fires, floods, or explosions. The state is now appealing the disaster declaration denial.

The top priority of response efforts is to ensure residents have access to safe, clean drinking water. Residents should install filters to their taps to ensure they have immediate, ongoing access to safe water. It is important to follow installation and maintenance instructions for filters and replacement cartridges. There are five water resource centers, open seven days a week from 9 a.m. to 9 p.m. at Flint fire stations. There are water resource teams going door-to-door to ensure every resident has a water filter and additional water resources.

- If you want to donate or volunteer to help the people of Flint, visit: [www.helpforflint.com](http://www.helpforflint.com).

Since the Governor's emergency declaration we have distributed 207,055 cases of bottled water, nearly 37,342 filters, and 30,801 water testing kits. When installed and maintained properly, water filters remove 99 percent of lead in water. Residents are urged to use filtered water for drinking, food preparation, brushing teeth and watering pets. Unfiltered water may be used for bathing and cleaning.

For a Flint Water timeline, please visit [CLICK HERE](#).

Friday, January 29 Governor Snyder signed legislation bringing \$28 million to immediately help families in Flint with lead testing, treatment and other emergency services. The funding was part of a multi-point relief package the governor outlined last week during his state of the state address to the Michigan Legislature.

This is the second emergency supplemental funding bill allocated to assist the city of Flint this fiscal year. A previous \$9.3 million package was approved in October 2015 to reconnect Flint to the Detroit Water and Sewerage Department, provide filters and water testing to residents, aid in follow-up

health services for children and assist with plumbing inspections at schools and health facilities.

House Bill 5220, sponsored by state Rep. Phil Phelps and approved unanimously in both the House and Senate will help ensure Flint residents have access to safe, clean drinking water while helping to do the following:

- Supply free bottled water, faucet filters, and testing kits for Flint residents;
- Put nine nurses in local schools to monitor student health and well-being;
- Provide better nutrition for students and infants through WIC and in-school nutrition programs;
- Replace fixtures in schools, daycares, nursing homes and hospitals;
- Provide for an infrastructure study using independent experts;
- Treat any children who have high lead levels in the blood, using diagnostic testing, nurse visits and environmental assessments in the home;
- Provide additional community education opportunities within the Genesee County Health Department;
- Compensate the Michigan National Guard's work to support water distribution;
- Assist with home lead abatement costs;
- Help the City of Flint with utility issues;
- Provide operational funding for the Flint Interagency Advisory Committee.

The funding bill totals \$28 million with \$22.6 million from the general fund. The remaining \$5.4 million comes from a combination of federal and restricted funds. It is now Public Act 3 of 2016.

Governor Snyder will propose a long-term funding solution to address the ongoing needs of Flint in his Feb. 10 formal budget recommendation. Long-term health monitoring for children exposed to the water and potential replacement of water infrastructure and service lines will be addressed through the governor's traditional budget recommendation, which will be shared on Feb. 10.

We will continue to work to improve the water situation in Flint. Community members and local officials are working together to make sure we hear and respond to concerns.

Thursday, January 28 a plan to recycle the thousands of plastic bottles being distributed during the Flint water crisis. The plan includes drop-off sites for recyclables and increased promotion of the curb side pickup already offered to Flint residents. [To learn more about the recycling plan in Flint, click here.](#)

For updates, please visit [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater).

Thank you, again, for taking the time to share your concerns with our office. Should you have any further comments, questions or concerns regarding this or any other state-related matter, I've included my contact information below.

Sincerely,



Laura Stoken  
Constituent Relations Division  
Executive Office of the Governor, Rick Snyder  
517.335.7858 (o)

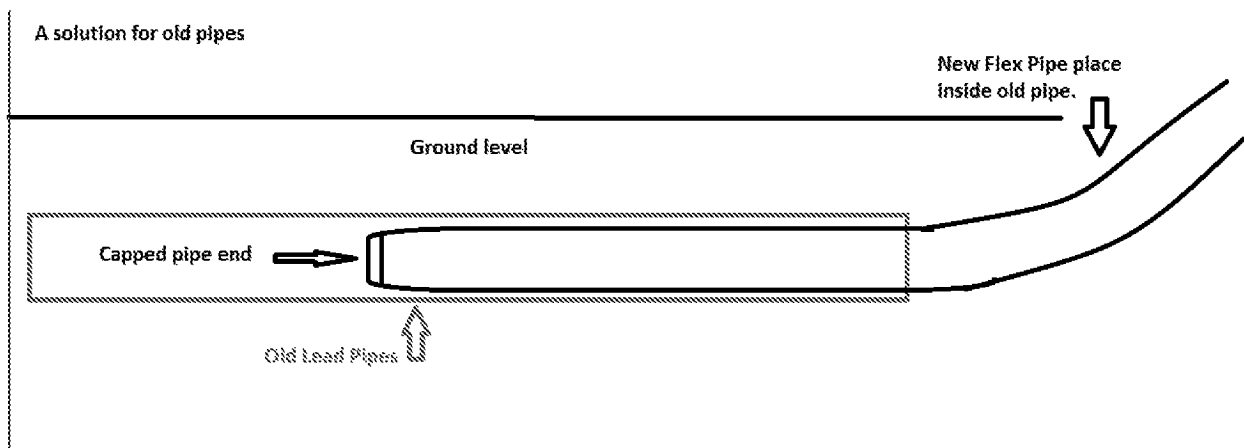
Greetings;

While I am not an engineer I have come up with a solution for the Flint water line replacement issues. The concept came from remembering how new natural gas lines were being placed this past summer. The lines had a flex to them and where placed in holes bored at an angle underground the running horizontally.

Using a similar concept use a flex pipe that is smaller than the inside diameter of the old pipe. the end that is inserted is capped to protect the inside of the new pipe while it is sliding the old pipe.

This concept can be used for main and feeder lines.

See Diagram below for example:



It is my belief that this would greatly reduce the time and expense needed to repair and or replace the old toxic water lines. The slightly smaller lines will slightly reduce the rate of flow but the speed which it could be greater than digging up the old lines.

Please consider this as a quicker solution to the issue that has arisen in Flint.

Brian Storace  
Owosso,MI

---

**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, February 02, 2016 10:08 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint Water solution suggestion  
**Attachments:** flint pipe solution.pdf

For your determination

---

**From:** B Storace [<mailto:brs2home@yahoo.com>]  
**Sent:** Friday, January 22, 2016 3:51 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Subject:** Fw: Flint Wat solution suggestion

2nd attempt first was kicked back

----- Forwarded Message -----

**From:** B Storace <[brs2home@yahoo.com](mailto:brs2home@yahoo.com)>  
**To:** "brian.calley@michigan.gov" <[brian.calley@michigan.gov](mailto:brian.calley@michigan.gov)>  
**Sent:** Wednesday, January 20, 2016 8:13 PM  
**Subject:** Flint Wat solution suggestion

Mr. Calley;

The share an opinion system was not working tonight for Govenor Snyder. I was trying to pass a long a solution I came up with for the toxic Flint pipes. I have a PDF attached explaining the solution. If you coould please pass it along to anyone who will find it useful it solving the issues.

Best regards  
Brian Storace  
1709 N. M 52  
Owosso, MI 48867

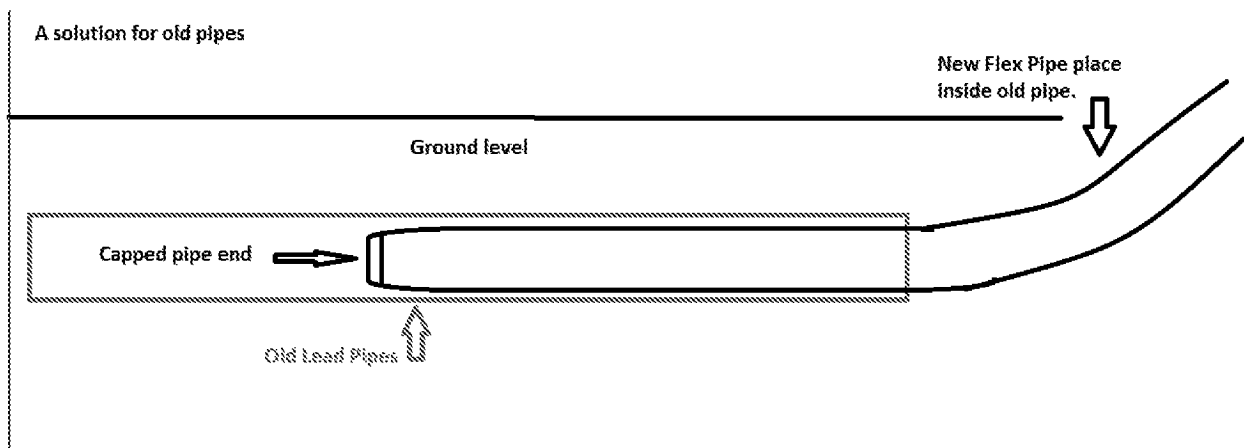
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Using a similar concept use a flex pipe that is smaller than the inside diameter of the old pipe. the end that is inserted is capped to protect the inside of the new pipe while it is sliding the old pipe.

This concept can be used for main and feeder lines.

See Diagram below for example:



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Brian Storace  
Owosso,MI

---

**From:** McBride, Bill (GOV)  
**Sent:** Tuesday, February 02, 2016 1:06 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: IBWA Letter for Governor Snyder  
**Attachments:** Snyder Flint letter 012916.pdf

---

**From:** James Toner [<mailto:JToner@bottledwater.org>]  
**Sent:** Monday, February 01, 2016 7:46 AM  
**To:** McBride, Bill (GOV) <[mcbrideb@michigan.gov](mailto:mcbrideb@michigan.gov)>  
**Subject:** IBWA Letter for Governor Snyder

Bill,

I hope this finds you well and that you are holding up with everything going on regarding Flint. It's been a while since we have talked but I was always impressed with all the individuals in Governor Snyder's office that cover water issues. So, I imagine you have things well in hand.

I wanted to get this letter from IBWA to the Governor to let him know the bottled water industry is doing all we can and we stand ready to assist in any way possible moving forward.

Please let me know if you have any questions or if I can be of further assistance.

JP

James P. Toner, Jr.  
Director of Government Relations  
International Bottled Water Association (IBWA)  
1700 Diagonal Road  
Suite 650  
Alexandria, Virginia 22314  
703.647.4616 Direct  
703.683.5213 Main  
703.683.4074 Fax

Follow IBWA on





1700 Diagonal Road, Suite 650  
Alexandria, VA 22314  
Ph: 703-683-5213  
Fax 703-683-4074  
Web: [www.bottledwater.org](http://www.bottledwater.org)

January 29, 2016

The Honorable Rick Snyder  
Governor of Michigan  
P.O. Box 30013  
Lansing, MI 48909

Dear Governor Snyder,

The International Bottled Water Association (IBWA) would like to take this opportunity to offer our assistance to you and your administration in responding to the recent water emergency in Flint, Michigan. Our members are very familiar with the logistics of responding to events such as natural disasters, water main breaks, and other incidents that can compromise public water systems. IBWA therefore appreciates the recent efforts undertaken by the state, the city of Flint, and third parties to ensure that citizens receive clean, potable water during this significant crisis. Over the years, IBWA has had several opportunities to discuss various water issues with your staff and we have always been impressed with their knowledge and understanding of critical water infrastructure matters.

The bottled water industry is always there to help during a natural disaster or other emergency situation. And every year, IBWA members respond to requests -- both big and small -- to provide bottled water to those in need. In Flint, IBWA members immediately stepped forward to reroute trucks and coordinate with local suppliers to provide citizens with safe, clean, bottled water when the public water system was found to be compromised. So far, IBWA members have taken the following actions to help provide the citizens of Flint with safe drinking water:

- Donated over 1.5 million bottles of bottled water.
- Coordinated efforts with emergency relief partners such as Convoy of Hope and the Food Bank of Eastern Michigan.
- Worked with other bottled water retailers and bottlers to ensure approximately 10,000 Flint public school students have access to clean, safe water.

IBWA is the national trade association that represents all segments of the bottled water industry, including spring, mineral, purified, artesian, and sparkling. Founded in 1958, IBWA member companies include water producers, distributors, and suppliers throughout the United States, including several companies conducting business in Michigan. While we represent companies of all sizes, the vast majority of our members are small, locally-owned companies, with 60 percent reporting less than \$2.5 million in annual gross sales, and 90 percent reporting less than \$10 million in annual gross sales. IBWA's mission is to serve the members and the public by championing bottled water as an important choice for healthy hydration, and promoting an environmentally responsible and sustainable industry.

While the conditions associated with the situation in Flint continue to be addressed, please know that the bottled water industry is always ready to help in any way to assist in providing safe, clean, healthy water.

Please contact me should you have any questions or if we can be of any further assistance.

Sincerely,

A handwritten signature in black ink that reads "Joe Doss". The signature is written in a cursive, flowing style.

Joe Doss  
President and CEO



1700 Diagonal Road, Suite 650  
Alexandria, VA 22314  
Ph: 703-683-5213  
Fax 703-683-4074  
Web: [www.bottledwater.org](http://www.bottledwater.org)

January 29, 2016

The Honorable Rick Snyder  
Governor of Michigan  
P.O. Box 30013  
Lansing, MI 48909

Dear Governor Snyder,

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While the conditions associated with the situation in Flint continue to be addressed, please know that the bottled water industry is always ready to help in any way to assist in providing safe, clean, healthy water.

Please contact me should you have any questions or if we can be of any further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Joe Doss".

Joe Doss  
President and CEO

---

**From:** BrownleeJ@michigan.gov  
**Sent:** Thursday, February 18, 2016 9:26 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: 4/4  
**Attachments:** FW 6.zip; ATT00001.htm

Sent from my iPhone

Begin forwarded message:

From: "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
To: "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Subject: FW: 4/4

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Sachs, Tori (GOV)  
Sent: Tuesday, February 09, 2016 7:40 PM  
To: Weise, Kevin (MSP); Lord, Daniel (DNR)  
Subject: 4/4

Hopefully this goes through and is the last one.

Tori Sachs  
External Affairs Advisor  
Office of Gov. Rick Snyder  
C: 517-775-3688



---

**From:** Stoken, Laura (GOV)  
**Sent:** Friday, January 29, 2016 3:46 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: We'd like to offer our services to the people of Michigan

Forwarding for your determination

**From:** Jim Kissane [<mailto:jim@yourlifearchive.com>]  
**Sent:** Friday, January 29, 2016 3:14 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Cc:** Susan Haines <[susanh@theonefile.com](mailto:susanh@theonefile.com)>  
**Subject:** We'd like to offer our services to the people of Michigan

Hon. Governor Snyder,

The way the state of Michigan responds to the water crisis in Flint (and other cities), will be recorded in history. We would like to help write the page that shows how your office responded compassionately and quickly to this incident, showing benevolence throughout the process.

My company is prepared to help your office immediately respond to this crisis, providing a visible and tangible demonstration to the rest of the country of your commitment to limiting further harm to your constituents, and mitigating the state from unnecessary legal expense.

Mrs. Susan Haines, of my staff has been in conversation with the RNC leadership, and it was their recommendation that my company reach out to you.

We are prepared to provide immediately, a means for the thousands of families to securely gather and archive and catalog their medical information, so that in the inevitable lawsuit that follows, the resident's information has been gathered and protected, and that the financial damage of a huge settlement is contained.

My firm operates one of the most secure encrypted data vaults in North America, and the principals of my leadership team are well experienced in responding to crisis situations, where technology needs to be pressed into service to serve the public good.

If this proposition suits your needs and interest I would invite you or a member of your staff to reach out to me so we can begin a dialog, which we can then turn into a proposal to the state.

Sincerely,

Jim Kissane, CEO/President  
YourLifeArchive Inc.  
*home of* **TheOneFile**  
(800) 657-9067  
(813) 765-4225 (my personal cell phone)



---

**From:** Stoken, Laura (GOV)  
**Sent:** Friday, January 29, 2016 3:47 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Water Emergency - Shampoo Wipes to Mitigate Damages  
**Attachments:** EE Brochure - Inside.pdf; EE Brochure - Outside.pdf

For your determination

-----Original Message-----

From: [ronald@essentialeffects.com](mailto:ronald@essentialeffects.com) [ronald@essentialeffects.com](mailto:ronald@essentialeffects.com) [<mailto:ronald@essentialeffects.com>]  
Sent: Friday, January 29, 2016 2:26 PM  
To: Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
Subject: Water Emergency - Shampoo Wipes to Mitigate Damages

Dear Governor Snyder:

My name is Ron Van and I am President of a company, Essential Effects, LLC, based in California. I am aware of the ongoing water crisis in Flint, Michigan.

My company manufactures a new product, rinse-free Shampoo Wipes, that I believe may be of necessity to residents of Flint during the water crisis. Our rinse-free Shampoo Wipes allow users to clean their hair without using water.

Our company is about to supply our Shampoo Wipes to the Marine Corp. Exchange, but I believe that our wipes may also come in handy for the residents of Flint as we have heard about alleged claims of hair loss by residents who have been using water to bath and shower. I trust that the State and City of Flint will do everything it can to mitigate any potential damages that residents may later seek.

I encourage you to visit our website at [www.essentialeffects.com](http://www.essentialeffects.com). I also enclose our product brochure. We are providing our Shampoo Wipes to the Marine Corp. Exchange at our lowest possible price, which is \$1 per wipe (not including shipping). We would gladly honor this price to the State and the City of Flint, in light of this water crisis, if there is any interest in providing these Shampoo Wipes to Flint residents.

Please contact me at (310) 346-4789 if the State has any interest in our product. We do have a limited stock on hand and so I hope to hear back from you soon.

We can ship as early as next week. I look forward to hearing from you shortly.

Regards,  
Ron Van  
President  
Essential Effects  
[www.essentialeffects.com](http://www.essentialeffects.com)  
[ronald@essentialeffects.com](mailto:ronald@essentialeffects.com)  
(310) 346-4789

# METRA INDUSTRIES

FUI RB/HH (JA/TS)  
KCreagh

50 Muller Place  
Little Falls, New Jersey 07424  
(973) 812-0333  
FAX (973) 812-0330

January 26, 2016

Mayor Dr. Karen Weaver  
1101 S. Saginaw Street  
Flint MI 48502

Dear Mayor Weaver,

We are writing regarding your efforts to correct the Flint drinking water problems. In many cases rehabilitation of existing water mains is more beneficial than replacement. Rehabilitation via in-situ cement mortar lining is a proven long term effective means of corrosion prevention. It is economical, effective, and minimally disruptive. We are enclosing the following three reference documents to assist in correcting the Flint water system problems.

1. American Water Works Association (AWWA) standard C602 for Cement Mortar Lining of Water Pipelines in Place 4 in. and Larger.
2. American Water Works Association (AWWA) manual M28 Rehabilitation of Water Mains (partial copy of manual)
3. History and Development of Water Main Rehabilitation by In-situ Cement Mortar Lining Technology

Metra Industries is proficient in the performance of In-Place Cement Mortar Lining of water mains as well as many other rehabilitation technologies. Please call if you have any questions. We would be very happy to help. Thank you.

Very Truly Yours,



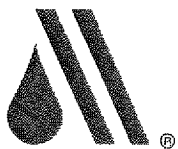
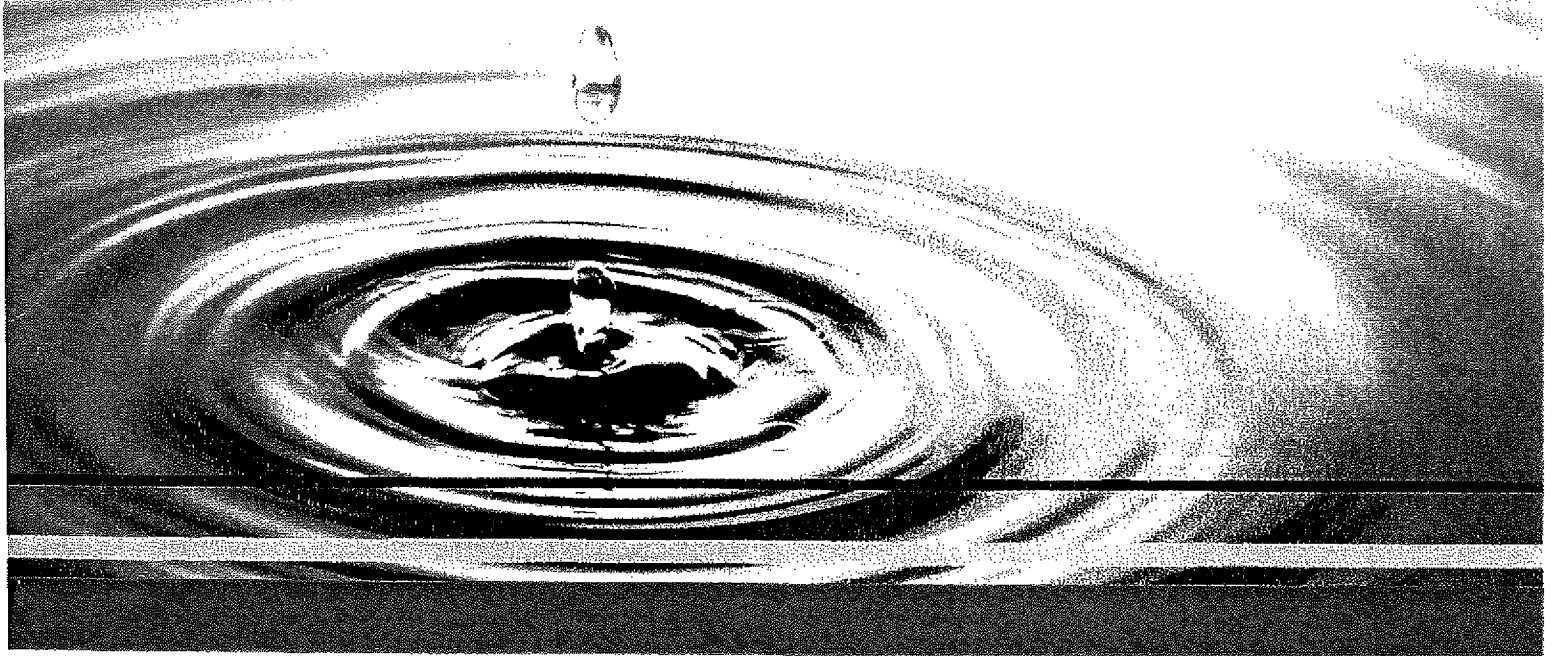
Joseph W. Dioslaki, P.E.  
Project Manager

CC: Governor Rick Snyder  
Bob Kaplan, EPA Region 5 Deputy Administrator  
Miguel Del Toral, EPA Region 5 Ground Water Drinking Water Branch Relations Manager  
Darren Lytle, EPA Office of Research and Development Scientist  
Michael Schock, EPA Office of Research and Development Scientist  
Jeff Kempic, EPA Office of Water Lead and Copper Rule Technical Lead  
Tim Henry, EPA Region 5 Water Division Deputy Director  
Tom Poy, EPA Region 5 Ground Water Drinking Water Branch Chief

# Rehabilitation of Water Mains

MANUAL OF WATER SUPPLY PRACTICES

28



American Water Works  
Association

Advocacy  
Communications  
Conferences  
Education and Training  
► Science and Technology  
Sections

The Authoritative Resource for Safe Drinking Water™



## Chapter 1

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# Distribution System Performance Criteria

### WATER QUALITY

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The quality of treated drinking water may vary considerably, both from system to system and within a system, as a result of deterioration after it leaves the treatment plant and comes in contact with the interior of distribution system piping. Over time, changes in water chemistry can cause problems throughout the distribution system, ultimately affecting the quality of the water delivered to the end user.

The specific nature of distribution system water quality problems vary with water chemistry. However, the majority of these problems fall into three categories: sedimentation, encrustation, and fouling.

#### Sedimentation

Sedimentation is the process whereby solids settle out of water moving at low velocity in a main, reducing interior cross section and capacity. Source water pipelines or pipelines carrying improperly treated water can be subject to deposits of sand, silt, or organic materials. In extreme cases, sedimentation can also contribute to hydraulic problems, particularly at low points in the pipe.

Even slight overtreatment of water can result in posttreatment precipitation within the distribution system of deposits containing alum, lime, or calcium carbonate. A utility may promote controlled precipitation to lay down a thin layer (eggshell coating) of calcium carbonate for protection of the metallic pipeline interior. However, excessive or irregular deposits can easily occur, requiring cleaning of the distribution system.

#### Encrustation

Encrustation is a by-product of corrosion (tubercles) mixed with mineral deposits, such as iron, manganese, and carbonates. Before the 1960s, many iron pipes were

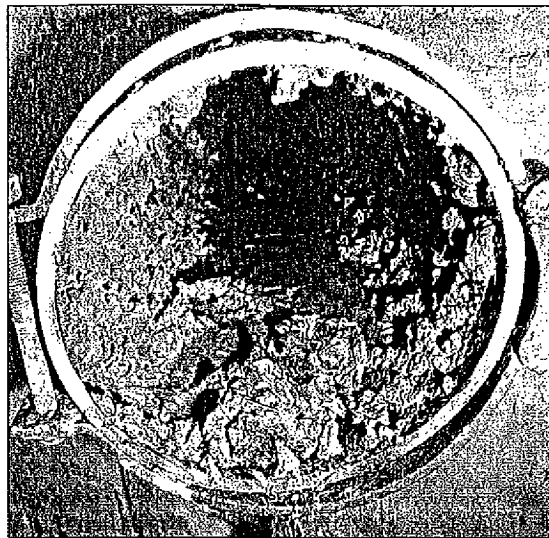


Figure 1-1 Pipe with problems caused by corrosion

installed without linings to protect the interior surfaces. These unlined pipes often experience internal corrosion.

As corrosion occurs, the interior of the pipe develops pits from which material is removed and tubercles where material is deposited (Figure 1-1). Additionally, corrosion can create "red water" complaints from end users. Corrosion may result from direct oxidation or electrolytic action, both fostered by aggressive water. Tuberculation can vary with water chemistry (from very soft to very hard water). Proper water chemistry does help to prevent additional buildup of encrustation. Most encrustation can be removed by cleaning. Perhaps the most significant water quality problem presented by encrustation are the potential difficulties maintaining a disinfectant residual. Removal of encrustation often increases a system's disinfectant residual; however, regrowth of encrustation is likely in unlined iron pipes.

### Fouling

Fouling represents a very significant problem, but one that is not always well-understood. A fouling problem can develop with any type of pipe material. The condition is usually caused by natural biological activity and results in buildup of an organic deposit on the interior of the pipe. Although this deposit is often soft and filamentous, it can severely affect water turbidity and cause taste-and-odor problems. Bacteriological activity from organisms, such as iron-fixing bacteria, can result in development of slimes and severe deposits in the pipe.

## HYDRAULIC PERFORMANCE

In addition to water quality problems discussed so far, any buildup inside distribution system piping can greatly reduce the hydraulic performance of the system. Hydraulic engineers have long determined flow in pipes by using the empirically derived Hazen-Williams formula:

$$V = 1.318Cr^{0.63}s^{-0.54}$$

Table 1-1 Hazen-Williams coefficient

Condition	C
New pipe	130-140
Fair to normal (interior clean)	100
Significant reduction in pipe capacity	70
Severe problem—interior cross section greatly reduced	30-50

where:

- $V$  = velocity, in ft/sec (m/sec)
- $r$  = hydraulic radius, in ft (m), which is the cross-sectional area of the pipe divided by the wetted perimeter
- $C$  = Hazen-Williams roughness coefficient
- $s$  = slope of the hydraulic grade line, in ft/ft (m/m)

$C$  (often called the "C factor") represents the coefficient of friction, a measure of the roughness of the interior of the pipe. Expressed in terms of  $C$ , the formula can be stated as:

$$C = 2,466QD^{-2.63}H^{-0.54}L^{0.54}$$

where:

- $C$  = Hazen-Williams roughness coefficient
- $Q$  = Quantity of flow in a pressure conduit, in mgd ( $m^3/d$ )
- $D$  = Nominal diameter of the pipe, in in. (mm)
- $H$  = Head loss, in ft (m) of water
- $L$  = Length of pipe, in ft (m)

The  $C$  factor, and hence the flow in a pipeline, depends on the type of pipe and its interior condition (see Table 1-1). For a given velocity, increased internal surface roughness (changing laminar to turbulent flow) can lead to a reduction in overall pipeline efficiency.

Field testing techniques allow distribution system operators to calculate Hazen-Williams  $C$  factors for their systems. These data help in making informed decisions about which process to employ to restore hydraulic efficiency. Collecting data for the Hazen-Williams  $C$  factor after employing any cleaning or pipe rehabilitation process is also a very useful way to gauge the impact of the system improvements.

## STRUCTURAL PERFORMANCE AND LEAKAGE

The structural performance of a water main may deteriorate over time because of a number of effects. Cast-iron, ductile-iron, and steel piping may be subject to internal and/or external corrosion, resulting in pitting and wall thinning, which can lead to leakage and eventual burst failures. Cement-based pipes such as asbestos-cement and concrete piping may also be subject to deterioration due to corrosion of the cement matrix and/or steel reinforcement. In addition, all types of pipe, including thermoplastics, may be subject to joint failure between pipe lengths and hence excessive leakage, which can in turn lead to washout of bedding and subsequent structural failure.

Such structural and leakage failures can have direct consequences such as high maintenance costs, water quality problems, service interruptions, and loss of valuable treated water. They may also have indirect consequences in terms of the economic and public relations costs of damage associated with bursts and the overall public image of the service provider.



## REHABILITATION SOLUTIONS

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This manual describes a number of possible solutions to problems arising from corrosion and deposition. These range from simple periodic cleaning to replacement of the pipe using "trenchless" techniques. All of the solutions discussed in the manual make some use of the existing pipe, either as part of the rehabilitated system (renovation solutions) or as a convenient route for installation of new piping (replacement solutions). Solutions involving installation of a replacement pipe along a new route, such as open trench laying, directional drilling, and microtunneling, are outside the scope of this manual.

Selecting the optimal solution to a specific pipeline problem is a complex process involving both technical and economic considerations. Both the American Water Works Association Research Foundation and a number of AWWA technical committees are developing computer-based decision tools to assist utility engineers in this process. This work is expected to come to fruition while this edition of the manual remains in effect. In the meantime, the following guidelines may prove useful.

## SELECTION OF REHABILITATION SOLUTIONS

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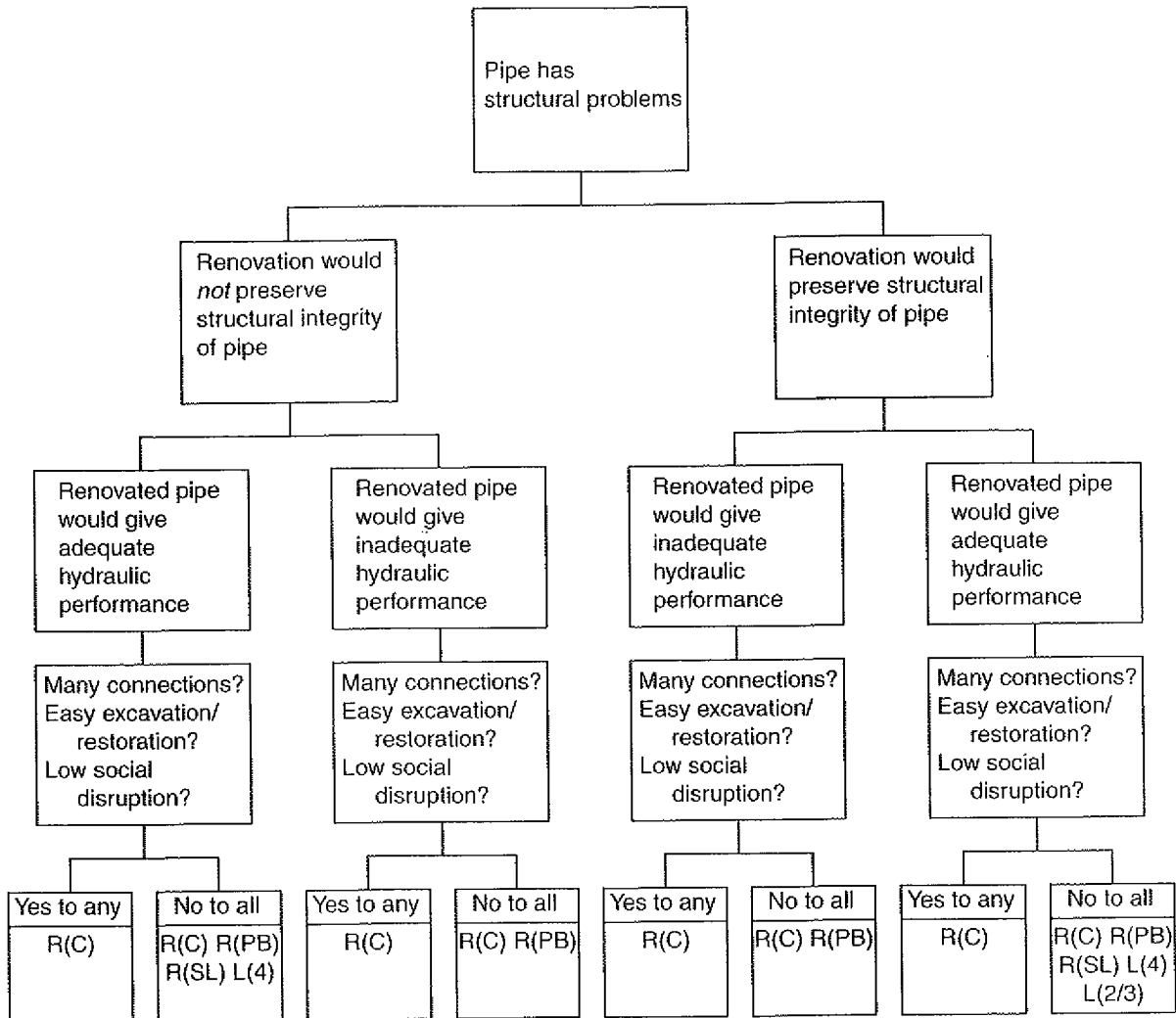
Key elements in the selection of a rehabilitation solution are

1. The exact nature of the problem(s) to be solved
2. The hydraulic and operating pressure requirements for the rehabilitated main
3. The materials, dimensions, and geometry of the water main
4. The types and locations of valves, fittings, and service connections
5. The length of time in which the main can be taken out of service
6. Site-specific factors

The aim of the selection process is to consider all these factors to arrive at the most cost-effective, technically viable solution. Ideally, the cost estimate should include not only direct contracting and related costs but also indirect costs associated with public disruption and longer-term maintenance and other "life cycle" costs.

One approach to technique selection is summarized in Figures 1-2, 1-3, and 1-4. Together, these charts provide a framework for selecting or rejecting groups of techniques, depending on the nature of the performance problems, hydraulic requirements, and some site-specific factors. In some cases, the charts indicate use of lining techniques classified as either Class I (nonstructural), Class II/III (semistructural), or Class IV (structural). A more detailed discussion of this classification system and of other key design issues associated with such lining techniques is presented in appendix A.

The figures do not list cleaning as a solution for water quality or flow and pressure problems. Cleaning with one of the various techniques discussed in the manual may well offer the lowest-cost immediate solution to many of these problems. It may offer a long-term solution if repeated as required or combined with chemical treatment of water to prevent or delay recurrence of the original problem. However, cleaning is more frequently used as a necessary preliminary step before carrying out one of the lining processes described in the manual.



R(C)—Replacement (conventional or boring/directional drilling)  
 R(PB)—Replacement (pipe bursting)  
 R(SL)—Replacement (slip-lining)  
 L(2/3)—Lining (semistructural—Class II/III)  
 L(4)—Lining (structural—Class IV)

Figure 1-2 Selection of rehabilitation techniques to resolve structural problems

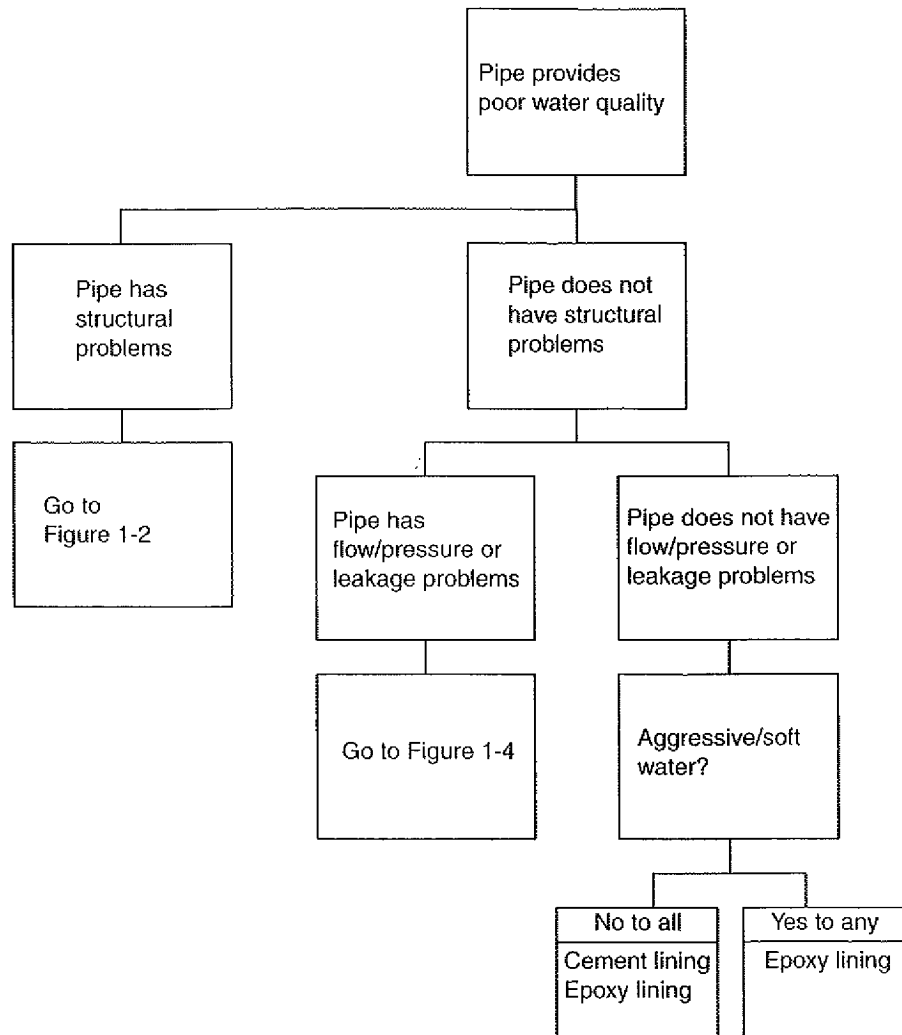
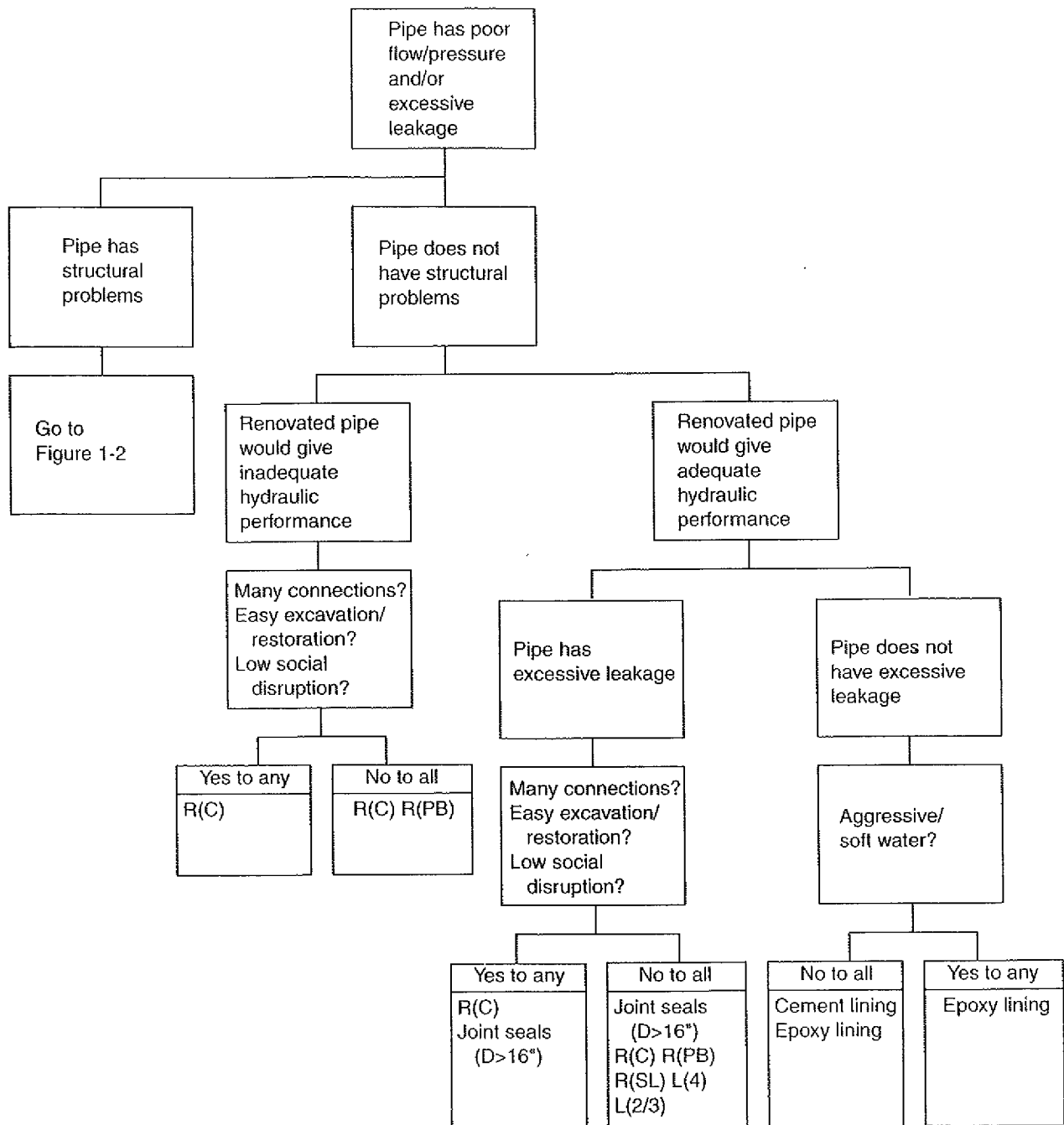


Figure 1-3 Selection of rehabilitation techniques to resolve water quality problems



R(C)—Replacement (conventional or boring/directional drilling)  
 R(PB)—Replacement (pipe bursting)  
 R(SL)—Replacement (slip-lining)  
 L(2/3)—Lining (semistructural—Class II/III)  
 L(4)—Lining (structural—Class IV)

Figure 1-4 Selection of rehabilitation techniques to resolve flow, pressure, and leakage problems



## Chapter 2

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# Cleaning

Water mains can be cleaned in place in a water distribution system using one or more of the following methods:

- Flushing
- Cable-attached devices
- Fluid-propelled devices
- Power boring

Dispose of cleaning water and debris in accordance with applicable regulations. Refer to AWWA Standard C651, *Disinfecting Water Mains*, for guidance in disinfecting pipelines before returning them to service.

## FLUSHING

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Water main flushing has a definite place in distribution system operation. It is particularly effective for light cleaning jobs. Mains should be flushed to clean newly installed and repaired mains prior to and after disinfection. Routine flushing is needed to remove impurities that cause complaints or are considered hazardous to public health. Refer to the AWWA handbook titled *Maintaining Distribution-System Water Quality* for specific flushing program guidelines.

Flushing should never be considered the only solution to water quality problems identified in the distribution system. Proper design and operation of distribution facilities and an effective backflow-prevention program should also be part of any effort to maintain water quality. While quality control is the primary purpose of flushing, careful observation of system hydraulics during flushing may indicate problems in mains, such as inadequate capacity, undiscovered restrictions, or closed or partially closed valves.

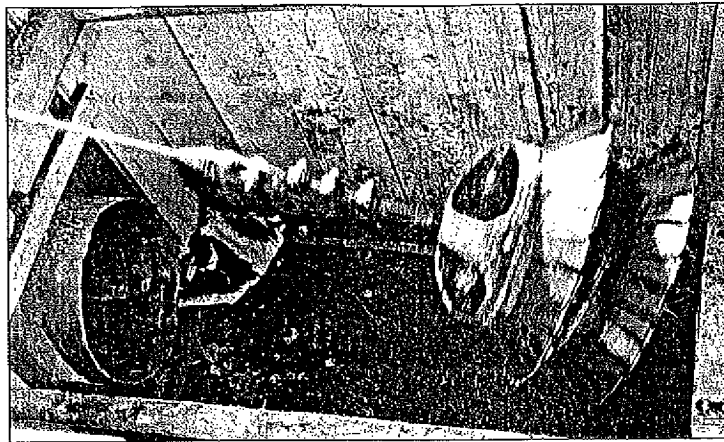


Figure 2-1 Drag cleaning, in which a winch pulls a mechanical cleaner through the pipe

## CABLE-ATTACHED DEVICES

Systems that use cable-attached devices for cleaning distribution mains include drag cleaning, hydraulic-jet cleaning, and electric scraper cleaning. In each case, the length of hose or cable determines the length of the pipe section that can be cleaned.

### Drag Cleaning

In drag cleaning, a winch pulls a mechanical cleaner, composed of a series of steel scraper blades and rubber squeegees, through the pipe (Figure 2-1). The mechanical cleaner is usually flexible, allowing it to negotiate bends of up to 45°. Both ends of the cleaner are fastened to steel cables, which are attached to winches at either end of the pipe section to be cleaned. The cleaner is winched first in one direction and then in the other, and this process continues until the pipe is satisfactorily cleaned.

This cleaning method offers important advantages:

- Cleaning can be accomplished when water pressure or volume is insufficient to propel a hydraulically driven device, or when excessive pressure would be required for hydraulic cleaning, especially with small-diameter mains.
- Very hard deposits and encrustation can be removed.
- Dry solids allow easy disposal.

### Hydraulic-Jet Cleaning

To clean pipe with a hydraulic jet, a special nozzle attached to a hose emits a jet of water at high velocity and pressure that removes debris and deposits from the interior of the pipe. Nozzle pressures of 1,000 to 10,000 psi (6,900 to 69,000 kPa) and above can be generated using this system. The jetted stream of water must bear hard enough against the scale or deposit to breach it and dislodge particles. Once the scale or depositional material is penetrated, the fluid forms a wedge between the deposit and the surface and strips off the deposit, exposing the clean metal surface. In many jetting operations, dislodged particles are entrained in the jetting stream and effectively dislodge more particles. The principal advantage of this method is removal of very tough deposits.

## Electric Scrapers

Electric scrapers are used to clean large-diameter lines. A variation of this cleaning method is the use of an electrically powered, operator-driven scraper. This power-driven scraper incorporates revolving brushes or rotating arms to clean the line.

The principal advantage of this method is the ability of the operator to evaluate the effectiveness of the cleaning process as it proceeds through the line.

## FLUID-PROPELLED CLEANING DEVICES

This section of the chapter describes fluid-propelled cleaning devices such as foam pigs and mechanical metal scrapers.

### Foam Pigs

Foam pigs are flexible, bullet-shaped cleaning tools manufactured of high-quality (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density) open-cell polyurethane foam, some coated with polyurethane synthetic rubber coatings (70 lb/ft<sup>3</sup> [1,121 kg/m<sup>3</sup>] density). (See Figures 2-2 and 2-3.) Pigs are propelled down water mains by the pressure and volume of water in the distribution system. Cleaning is accomplished by the frictional drag and flexible characteristics of the foam pig, which removes foreign objects, iron tuberculation, and other matter as it passes through the pipes, leaving the interior surfaces as smooth and free from irregularities as age, attrition of use, and type of piping material will allow. When water pressure is applied for propulsion, a certain amount of water bypass (approximately 10 percent) helps to keep loose debris suspended out in front of the foam pig (Figure 2-4).

Cleaning of deteriorating mains generally requires a series of swabs and foam pigs applied in progressively larger diameters (referred to as *progressive pigging*) until the pipe is restored to its original diameter.



Figure 2-2 Foam pig: A bullet-shaped device made of polyurethane foam



Figure 2-3 A foam pig with hardened coatings

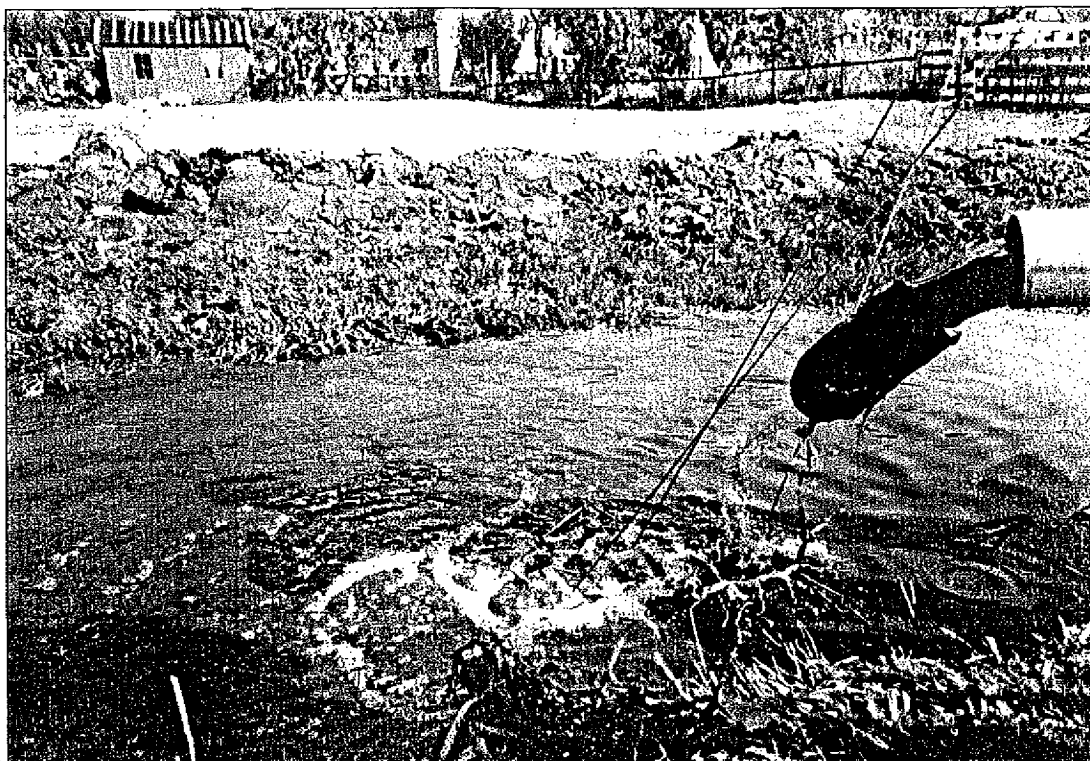


Figure 2-4 Loose debris flushed ahead of the pig

**Operating procedures.** The following steps briefly describe the most common operating procedures for cleaning water distribution mains with foam pigs. The described procedure is based on a best-case scenario; actual procedures may vary for certain applications.

1. Review drawings of lines to be cleaned to identify a) possible entry and exit points, and b) all valves to be used to isolate the section of system to be cleaned.
2. Exercise all valves in the section to be cleaned before the pigging operation to ensure isolation of the section to be cleaned.
3. Flow tests should be performed before and after the pigging operation to evaluate the efficacy of the cleaning and determine the resulting condition of the water main.
4. Provide adequate means for disposing any debris exiting the pipe. Storm drains may be suitable for disposing of small amounts of light debris. However, the best arrangement for handling large amounts of heavy debris would be to direct the flow to a temporary settling pond, the bed of a dump truck, etc., to facilitate removal of solids once the water has drained away.
5. Notify all affected customers (commercial and residential) as well as fire department officials of the scheduled interruption of service.



6. Confirm that all valves in the section to be cleaned are fully opened and working properly and that the section is properly isolated. Foam pigs follow the direction of flow, which must be controlled by the valve locations.
7. Introducing the foam pigs into the water main may be accomplished either by hand or through the use of mechanical equipment commonly called a *pig launcher*. Several types of fire hydrants, once they are disassembled, can be used as entry and exit points for pigging of some water mains 6 in. (150 mm) and smaller (Figure 2-5).
8. To produce the best cleaning results, foam pigs should travel through a water main at a rate of 3 to 9 ft/sec (9 to 24 m/sec).
9. Sequence of foam pig runs:
  - a. Introduce a line-sized, soft-foam swab (1.5 to 2.0 lb/ft<sup>3</sup> [24 to 32 kg/m<sup>3</sup>] density, uncoated), called a *prover pig*, to determine the actual effective inside diameter of the pipe to be cleaned. The swab wears down while passing deposits in and along the pipe wall.
  - b. Introduce a line-sized bare foam pig (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density, uncoated) to remove soft deposits and help gauge the true opening in the line.
  - c. Introduce a line-sized, coated foam pig (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density, coated with urethane elastomer). This type of foam pig should be run repeatedly until one emerges in reusable condition. A water line with excessive buildup should be pigged using the progressive pigging method, beginning with undersized, coated foam pigs and gradually increasing the size in successive passes until a line-sized foam pig emerges in reusable condition.

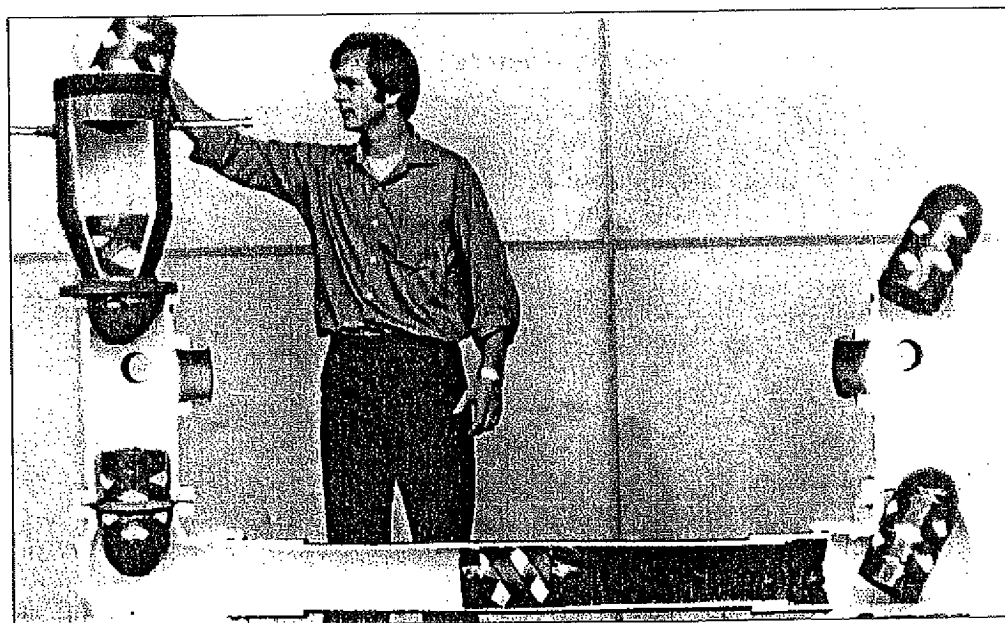


Figure 2-5 Pigs launched through a disassembled fire hydrant for a 6-in. (150-mm) or smaller line

- d. Line-sized, wire brush foam pigs may be introduced following these applications for final removal of extremely hard deposits (such as tuberculation).
  - e. Introduce a line-sized swab (1.5 to 2.0 lb/ft<sup>3</sup> [24 to 32 kg/m<sup>3</sup>] density foam, uncoated) to sweep out any loose debris and determine the effectiveness of the cleaning process.
10. Flush and disinfect as required.
  11. Place the water main back into service.

Foam pigs are flexible enough to negotiate short-radius bends and pass through full-port valves and some types of plug valves. Their capability to be compressed up to 35 percent of their cross-sectional area allows them to pass through multidimensional lines and full-port valves. A piggable valve is one through which a pig will pass every time. Foam pigs do not pass through butterfly valves. Foam pigs can clean long sections of piping from one entry point, thus reducing the number of excavation sites required. Pigging is a fast, simple, and cost-effective method of returning most deteriorated piping systems to as-designed capacity and efficiency.

## Metal Scrapers

A metal cleaning scraper consists of a steel frame shaped like a piston. Specially tempered steel blades are attached around the scraper at various angles to create a scraping and brushing action (Figures 2-6 through 2-8). The cleaner is propelled through the water main by means of water pressure.

Cleaning is often accomplished with a single pass in a continuous operation; sometimes, however, interior pipe conditions may require additional passes. The length of pipeline that can be cleaned hydraulically in one operation is limited only by the availability of volume and pressure water and a proper means of disposing of water and deposits. An opening must be provided at each end of the section to be cleaned for entry and exit of the cleaning tool. The volume of water required to hydraulically clean

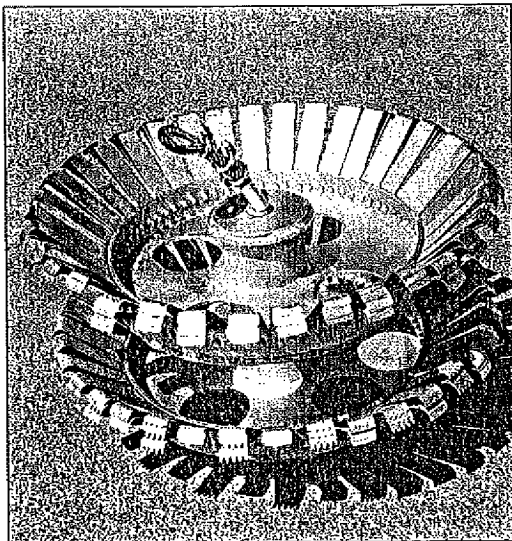


Figure 2-6 Scraper unit with specially tempered steel blades

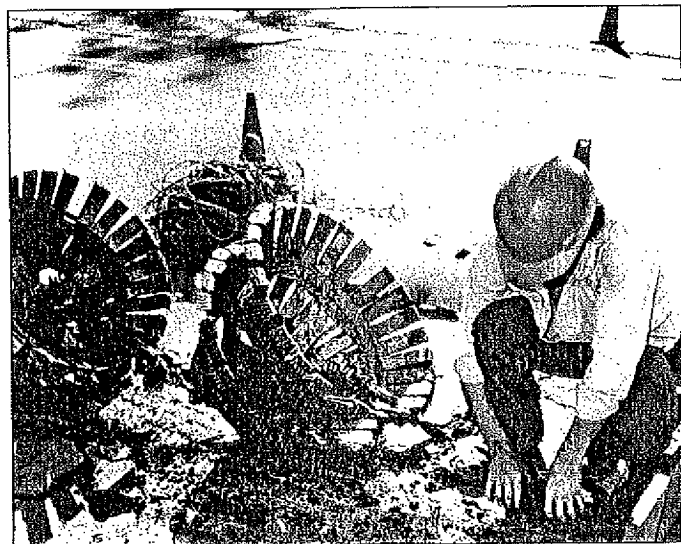


Figure 2-7 Several scraper units assembled together in the field

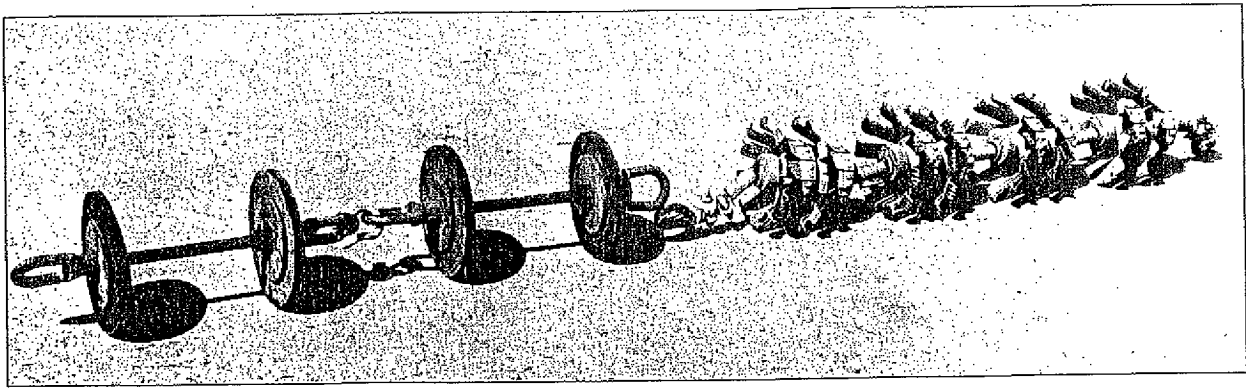


Figure 2-8 A series of disks to act as a hydraulic piston, pulling scrapers through the line

a pipeline will depend, to a great extent, on how dirty the water is. Sufficient water must be added behind the cleaner to fill the pipe as the cleaner moves ahead.

The water that passes the cleaner scours the wall of the pipe and washes ahead the material that is scraped off the pipe. While the velocity of water ahead of the cleaner is independent of cleaner speed, it must be sufficient to remove the deposits. Experience indicates that a flow velocity ahead of the cleaner of between 2 and 10 ft/sec (0.6 and 3.0 m/sec) is required to remove the deposits. In a small pipe, because a relatively large amount of material must be moved for the volume of the pipe, a relatively high velocity is required.

The cleaning water and deposits must be discharged from the pipeline in a way that avoids creating a nuisance or environmental problem. A sandbag dam can be constructed to create a pond for particle settlement (Figure 2-9). This allows the clean water to be decanted to a storm drain while any solid material is collected and properly disposed of. Another method is to pipe the water to a dump truck, catching the solids in the truck and allowing the water to run off into a storm drain.

**Operating procedures.** The following steps describe the operating procedures commonly used when cleaning water pipes with mechanical scrapers.

1. Review drawings of lines to be cleaned. Identify logical entry and exit points for the cleaning tool. Note all valves, service connections, and other components that must be opened or closed to isolate the line to be cleaned. Conduct C-factor tests (if not previously completed) to determine the condition of the line.
2. Excavate and install a spool piece at each entry and exit point (Figure 2-10). Obtain a sample of deposits in the line and determine their average thickness.
3. Determine source of cleaning water (e.g., reservoir, feeder mains, parallel lines, etc.). Cleaning for lines 12 in. (300 mm) in diameter and smaller may require auxiliary pumps to provide adequate flow and pressure; flow and pressure within the system generally are adequate to clean mains over 12 in. (300 mm) in diameter.
4. Provide suitable means for disposing water and removed solids.
5. Notify all affected commercial and residential customers, as well as fire department officials, of the scheduled interruption of service.

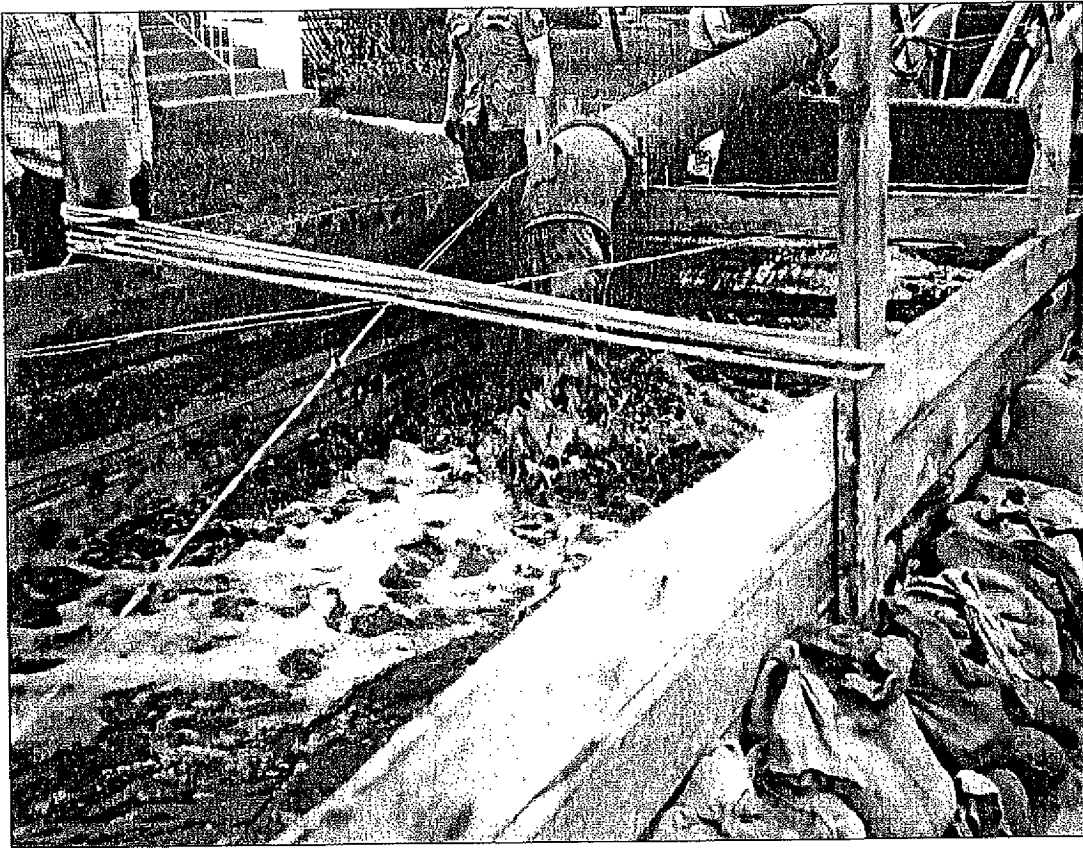


Figure 2-9 A sandbag dam to create a pond for particle settling

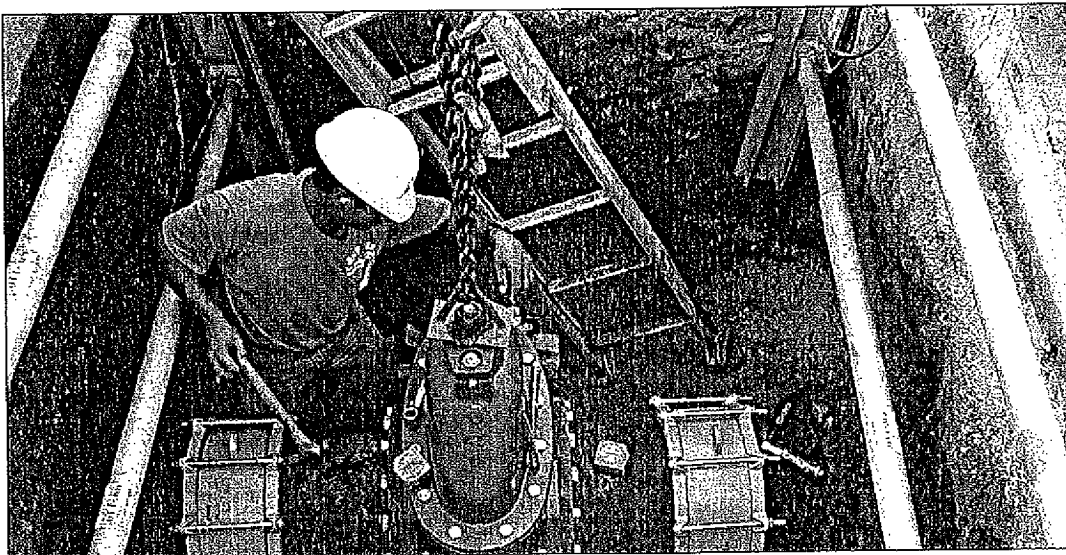


Figure 2-10 A spool piece installed at the entry and exit points for mechanical scrapers

6. Completely isolate the section to be cleaned. Close valves slowly to prevent water hammer.
7. Drain the line to be cleaned.
8. Open entry and exit points and remove spool piece sections. At the entry point, install a spool piece with the cleaning device inside. At the exit point, install discharge piping to bring discharged water up to ground level. Connect a water manifold with a throttle valve to control the rate of travel of the cleaning device.
9. Initiate the required flow into the main, and control speed with a bypass, blowoff valve.
10. Complete the cleaning operation.
11. Reclaim the cleaning device at the exit spool.
12. Repeat additional cleaning passes, as required.
13. Remove the insertion and retrieval sections, and replace permanent spool sections. Backfill and complete other necessary maintenance.
14. Flush and disinfect the line, as required. Conduct tests to determine its C factor following cleaning.
15. Return the line to service.

**Advantages.** Principal advantages of this method include

- Ability to clean long stretches of heavily deposited pipe at 2 to 10 ft/sec (0.6 to 3.0 m/sec) in a single, continuous operation
- Flexibility to negotiate standard bends (with maximum radius equal to 1½ pipe diameters) and elbows, inclined and vertical pipe sections, and to pass line-size gate valves, ball valves, tees, and corporation taps
- Ability to clean water mains with minimal excavation points
- Capability to restore water mains to C factors comparable to newly installed, unlined pipe

## CLEANING BY POWER BORING

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Power boring is a cleaning method using any hydraulically powered device capable of removing tuberculation and encrustation from cast-iron, ductile-iron, and steel pipe from 3 in. (76 mm) in diameter and above. This process is normally carried out in lengths of 400 ft (121 m) or greater. This cleaning method is described in the following paragraphs.

### Rack-Feed Boring Equipment

A rack-feed boring machine (Figure 2-11) is a compact, diesel-powered unit that uses hydraulic pressure to deliver up to 31 horsepower (23.1 kW) to a boring head. The boring head is designed to accommodate spring steel boring rods 15 ft (4.6 m) long fitted with spring-loaded quick-connects for connecting rods into suitable lengths for cleaning various lengths of pipe (Figure 2-12). The end of a boring rod assembly is fitted with a spring steel cutter blade or other cleaning tool, which rotates at 750 rpm through the pipe. (See Figure 2-13.) This cleaning process is conducted against a controlled, upstream water flow to flush loosened debris from the pipe.



## Chapter 3

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# Lining Techniques

A water utility may decide to line its distribution system pipes in response to a number of problems, such as those described in chapter 1. Lining a pipeline can eliminate the need for frequent flushing. Where leakage is a problem, linings have been installed to reduce or eliminate leaks through corroded areas of pipe or bad joints. A smooth lining in a corroding pipe helps to maximize hydraulic carrying capacity and minimize pumping costs. Additionally, some lining systems can correct structural failures, bridge breaks, and missing sections in corroded pipe, thus restoring service through a continuous pipeline.

In-place lining of water mains can be accomplished by one or more of the following general methods:

- Cement-mortar lining
- Epoxy lining
- Slip-lining
- Modified slip-lining
- Cured-in-place lining
- Structural lining
- Internal joint seals
- Pipe bursting

Internal joint seals and pipe bursting methods are discussed in chapters 4 and 5.

Refer to AWWA C651, Disinfecting Water Mains, for guidance on procedures for disinfecting pipelines before returning them to service.

## CEMENT-MORTAR LINING

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When alkaline-containing water comes in contact with iron, a chemical inhibitor against oxidation forms. Because the cement and sand in cement-mortar lining is porous, water can penetrate through the lining to the pipe wall, becoming alkaline in

the process. Consequently, pipe that is lined with cement mortar is protected from oxidation because of the composition of the portland cement.

Cement-mortar linings were first installed in existing pipelines using the centrifugal process in the mid-1930s. However, this method was limited to pipelines large enough for a person to enter. In the 1960s, remote lining processes were introduced. Today, cement mortar is applied to new ductile-iron pipes and most new steel pipes before installation, making this method a standard in the water industry.

Cement mortar is applied to the pipe wall by the rotating head of an electric or air-powered machine. The machine is placed in the pipe at 300 to 1,500 ft (92 to 458 m) intervals, depending on pipe diameter, valve locations, bends, profile, and alignment (Figures 3-1, 3-2, and 3-3). Mortar is pumped to the lining machine through high-pressure hoses or is mechanically delivered. The lining machine is equipped with rotating trowels or a conical drag trowel positioned just behind the dispensing head. As the machine moves through the pipe, it leaves a smooth, troweled (nonstructural) finish.

A reinforced cement-mortar lining may also provide structural improvement. Initially a 0.5-in. (13-mm) thick cement-mortar lining is placed on the pipe wall in the conventional manner without troweling. Using overlapping joints, a wire mesh is placed against the lining, which is then covered by another 0.5-in. (13-mm) troweled cement-mortar lining. The remaining steps in the process are the same as those for an unreinforced lining. This process is generally used to rehabilitate steel lines in poor condition due to extensive corrosion and in lines large enough for a person to enter. The reinforcing wire holds the cement mortar together, even if large holes develop in the pipeline. While this method will not necessarily prevent a blowout, it will extend the useful life of a pipeline.

## Operating Procedures

The following steps describe the common operating procedures used when lining a main with nonstructural cement mortar.

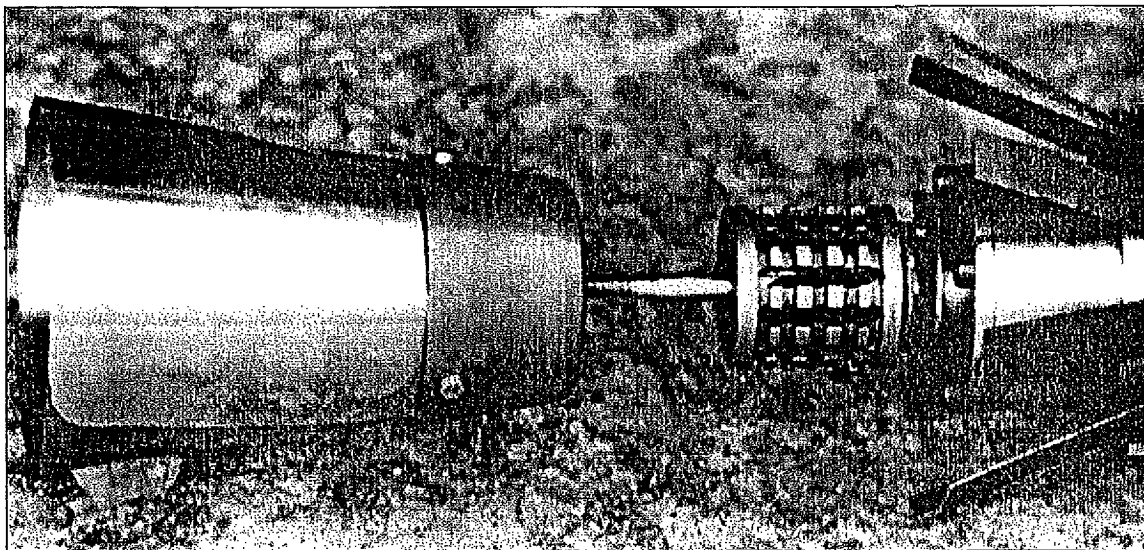


Figure 3-1 A cement-mortar lining machine for use in small-diameter pipe



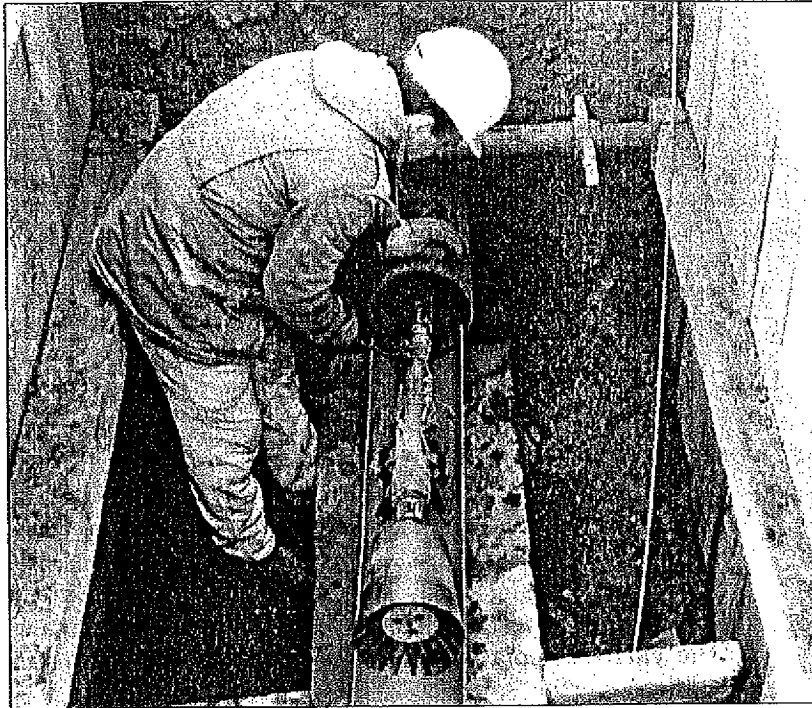


Figure 3-2 Introduction of a small lining machine

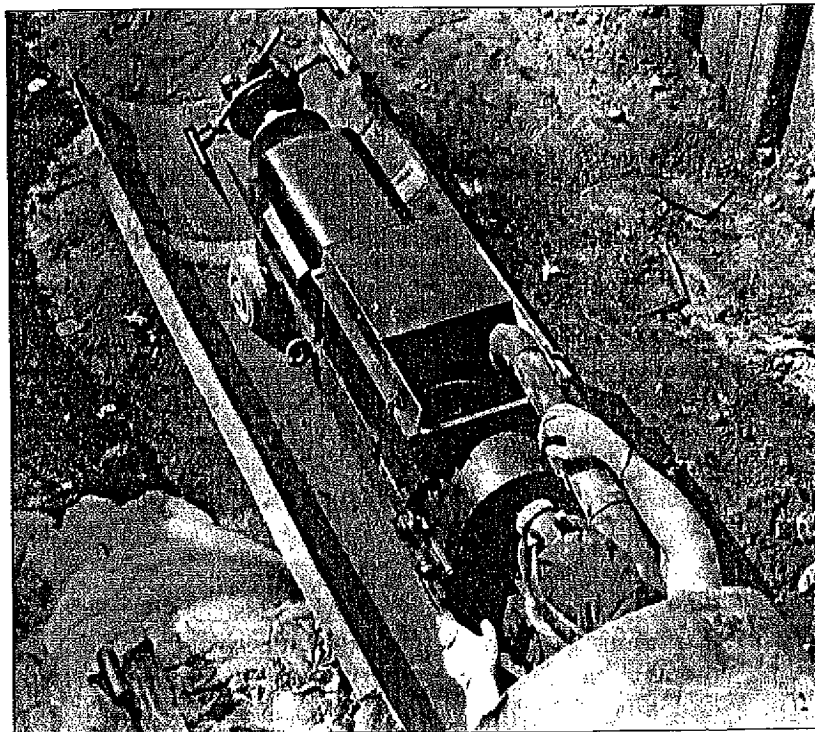


Figure 3-3 A cement-mortar lining machine for use in large-diameter pipe



1. Topography, bends, in-line valves, reduced-diameter in-line valves, and traffic conditions all influence the locations of excavations for access points to allow introduction of the lining equipment. These conditions also affect the method used to clean the pipe. All 22.5°, 45°, and 90° bends must be removed for 12-in. (300-mm) diameter pipe and smaller; 45° and 90° bends must be removed in 16-in. (400-mm) diameter pipe. Pipe 20-in. (500-mm) diameter and larger may require excavations near the bends or removal.

Full-diameter line valves must be removed and replaced, or the bonnets removed to clean the cement mortar from the interior of the valve if the pipe is too small for a person to enter. In large pipe, personnel can clean the valve interior from inside the pipe. Depending on their size, reduced-diameter or obstructed line valves may require removal or excavations on each side of the valves to allow lining.

2. The pipeline is generally dewatered by gravity and/or blowoffs, which remove most of the water. The contractor can then remove any remaining water lying in low spots with rubber squeegees pulled by winch through the pipe. At this time, inspection usually determines whether any branch valves are leaking. If a valve fails to stop water from entering the pipe to be lined, it is reexercised. If the leakage continues, a seal is installed or the valve is replaced. The pipe must be free of water when lining with cement mortar.
3. Cast-iron pipe is cut with a squeeze-type cutter, guillotine saw, handheld mechanical saw, or traveling saw, and a 4- to 5-ft (1.0- to 1.5-m) section of pipe is removed. Steel pipe is cut by torch, and a half cap is removed. Mechanical couplings are used for reconnecting cast-iron pipe, and butt straps are used to reconnect steel pipe.
4. A mixing van or concrete batch plant is located near the access hole where a cement-mortar mixture, consisting of one part silica-type sand and one part type II portland cement, is prepared. The mixed mortar is then delivered to the lining machine by one of several methods, depending on the pipe diameter.
5. In 4- to 24-in. (100- to 600-mm) diameter pipe (sometimes larger), the mortar is pumped through high-pressure hoses to the lining machine. Specially designed winches pull the lining machine through the pipe at a constant speed, ensuring a uniform lining thickness.
6. Mechanical feeding equipment shuttling between the access excavation (where the mortar is mixed) and the lining machine delivers mortar to the lining-machine hopper. The lining-machine operator then regulates the mortar application. Mechanically driven rotating trowels are used with this manually operated equipment.
7. Consumers' service lines and laterals less than 2 in. (50 mm) in diameter must be cleared after the lining application. This is done about 1 hr after the lining is completed, using compressed air to blow open the service line at the connection to the main. Laterals over 2 in. (50 mm) in diameter are not plugged by centrifugal lining and do not require excavation or blow back.
8. Water can be introduced into the line without pressure to allow curing 24 hr after completing the lining. The main can then be chlorinated, tested, and

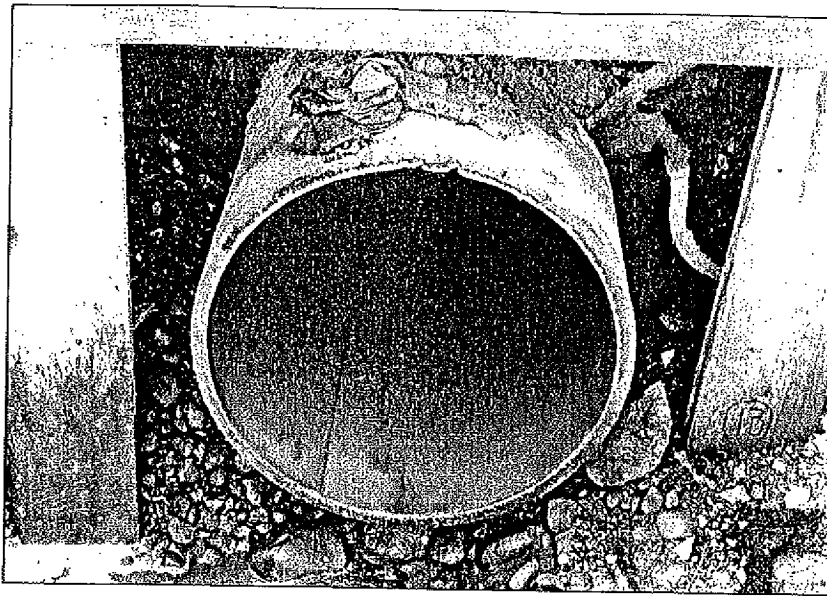


Figure 3-4 A pipe ready to be returned to service four to seven days after cement-mortar lining

returned to service. (Discharge water should be disposed of in accordance with local ordinances. Chlorine may need to be neutralized and the pH adjusted before discharge. Mains with low flow may experience high pH problems for a short time after being returned to service.) Most distribution mains are returned to service between four and seven days after lining (Figure 3-4), depending on valve locations and disinfection requirements.

9. AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place—4 in. (100 mm) and Larger, covers cement-mortar lining of pipelines from 4 in. (100 mm) to 144 in. (3,658 mm) in diameter.

American Water Works Association

**ANSI/AWWA C602-00**

(Revision of ANSI/AWWA C602-95)



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**AWWA STANDARD**  
FOR  
**CEMENT-MORTAR LINING**  
**OF WATER PIPELINES IN PLACE—**  
**4 IN. (100 mm) AND LARGER**



**Return to  
List of Standards**

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**AMERICAN WATER WORKS ASSOCIATION**

6666 West Quincy Avenue, Denver, Colorado 80235

## AWWA Standard

This document is an American Water Works Association (AWWA) standard. It is not a specification. AWWA standards describe minimum requirements and do not contain all of the engineering and administrative information normally contained in specifications. The AWWA standards usually contain options that must be evaluated by the user of the standard. Until each optional feature is specified by the user, the product or service is not fully defined. AWWA publication of a standard does not constitute endorsement of any product or product type, nor does AWWA test, certify, or approve any product. The use of AWWA standards is entirely voluntary. AWWA standards are intended to represent a consensus of the water supply industry that the product described will provide satisfactory service. When AWWA revises or withdraws this standard, an official notice of action will be placed on the first page of the classified advertising section of *Journal AWWA*. The action becomes effective on the first day of the month following the month of *Journal AWWA* publication of the official notice.

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# Foreword

*This foreword is for information only and is not part of AWWA C602.*

## **I. Introduction.**

I.A. *Background.* Cement-mortar lining provides the interior of a ferrous-metal pipe with a smooth finish that protects it from corrosion and tuberculation. The lining can significantly retard the recurrence of these problems in previously used pipe if the pipe has been properly cleaned and repaired before application of the lining. Furthermore, the lining can increase the pipeline's carrying capacity because of the reduction in friction resulting from streamlining surface irregularities.

The use of cement mortar as a protective lining for water mains was reported by the French Academy of Science in 1836. Fourteen years later, cement-lined, coated, sheet-metal pipe was introduced in the United States. Some of the early pipelines were in use for the better part of a century, but it was not until the 1930s that a practical method was developed for lining pipe in place.

The first field trial of in-place cement-mortar lining (of pipe that had been in service) was conducted in Jersey City, N.J., in 1933. The pipe was a short section 72 in. (1,830 mm) in diameter. The favorable outcome of the trial led to the cleaning and lining of more than 27,000 ft (8,230 m) of aged, 48-in. (1,220-mm) riveted-steel pipe supplying Newark, N.J. The lining stopped all leakage and, as a result of streamlining the surface over large rivets, also increased the Hazen-Williams flow coefficient by 14 points (estimated by the engineer).

For many years, the smallest-diameter pipe that could be reconditioned by the centrifugal process was 24 in. (600 mm), because a man was required to ride the lining machine through the pipe. In 1950, a remote-control centrifugal-lining machine was introduced that made in-place lining of progressively smaller-diameter pipe possible. Presently, pipelines ranging from 4 in. (100 mm) to 28 ft (9.2 m) in diameter can be cleaned and cement-mortar lined in place.

I.B. *History.* The first American Water Works Association (AWWA) standard for cement-mortar lining of pipe in place was published in 1939 as part of AWWA C205-41 (formerly 7A-7-41), Standard for Cement-Mortar Protective Lining and Coating for Steel Water Pipe. That standard was primarily concerned with in-plant lining and coating, a completely different process from in-place lining. Therefore, in 1951, the in-place lining portion was withdrawn and expanded into a separate

standard under the direction of the late H.A. Price, who authored most of the new document. That standard, AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place—Sizes 16 In. and Larger, was approved as tentative in 1954 and made standard in 1955.

In 1962, Price suggested to the AWWA Steel Water Pipe Manufacturers Technical Advisory Committee (SWPMTAC) that AWWA C602-55 should be revised in view of the extended competence of the centrifugal-lining process, which at that time included pipe as small as 4 in. (100 mm) in diameter. The assignment was given to SWPMTAC Subcommittee 8 and resulted in the revision of the standard adopted and published in 1967.

In 1972, the standard was again considered for revision to reflect the state of the art of in-place cement-mortar lining. The more frequent use of in-place cement-mortar lining in new, large-diameter steel pipelines prompted the committee to note some of the standard procedures used in this application. This edition was approved on Jan. 25, 1976. The standard was revised in 1983, 1988, and 1995. This edition was approved on June 11, 2000.

*I.C. Acceptance.* In May 1985, the US Environmental Protection Agency (USEPA) entered into a cooperative agreement with a consortium led by NSF International (NSF) to develop voluntary third-party consensus standards and a certification program for all direct and indirect drinking water additives. Other members of the original consortium included the American Water Works Association Research Foundation (AWWARF) and the Conference of State Health and Environmental Managers (COSHEM). The American Water Works Association (AWWA) and the Association of State Drinking Water Administrators (ASDWA) joined later.

In the United States, authority to regulate products for use in, or in contact with, drinking water rests with individual states.\* Local agencies may choose to impose requirements more stringent than those required by the state. To evaluate the health effects of products and drinking water additives from such products, state and local agencies may use various references, including:

1. An advisory program formerly administered by USEPA, Office of Drinking Water, discontinued on Apr. 7, 1990.
2. Specific policies of the state or local agency.

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\*Persons in Canada, Mexico, and non-North American countries should contact the appropriate authority having jurisdiction.

3. Two standards developed under the direction of NSF: ANSI<sup>\*</sup>/NSF<sup>†</sup> 60, Drinking Water Treatment Chemicals—Health Effects, and ANSI/NSF 61, Drinking Water System Components—Health Effects.

4. Other references, including AWWA standards, *Food Chemicals Codex*, *Water Chemicals Codex*,<sup>‡</sup> and other standards considered appropriate by the state or local agency.

Various certification organizations may be involved in certifying products in accordance with ANSI/NSF 61. Individual states or local agencies have authority to accept or accredit certification organizations within their jurisdiction. Accreditation of certification organizations may vary from jurisdiction to jurisdiction.

Annex A, "Toxicology Review and Evaluation Procedures," to ANSI/NSF 61 does not stipulate a maximum allowable level (MAL) of a contaminant for substances not regulated by a USEPA final maximum contaminant level (MCL). The MALs of an unspecified list of "unregulated contaminants" are based on toxicity testing guidelines (noncarcinogens) and risk characterization methodology (carcinogens). Use of Annex A procedures may not always be identical, depending on the certifier.

AWWA C602-00 does not address additives requirements. Thus, users of this standard should consult the appropriate state or local agency having jurisdiction in order to:

1. Determine additives requirements, including applicable standards.
2. Determine the status of certifications by all parties offering to certify products for contact with, or treatment of, drinking water.
3. Determine current information on product certification.

**II. Special Issues.** This standard has no applicable information for this section.

**III. Use of This Standard.** AWWA has no responsibility for the suitability or compatibility of the provisions of this standard to any intended application by any user. Accordingly, each user of this standard is responsible for determining that the standard's provisions are suitable for and compatible with that user's application.

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<sup>\*</sup>American National Standards Institute, 11 W. 42nd St., New York, NY 10036.

<sup>†</sup>NSF International, 789 N. Dixboro Rd., Ann Arbor, MI 48105.

<sup>‡</sup>Both publications available from National Academy of Sciences, 2102 Constitution Ave. N.W., Washington, DC 20418.

III.A. *Purchaser Options and Alternatives.* The following information should be included in the purchaser's specifications:

1. Project. Diameter, length, and location of pipeline, including plan and profile drawings when available; limits of pipeline shutdowns, if service requirements make these limits necessary; location of access manholes; location, type, and size of valves; location of interconnecting pipelines, hydrant branches, and service pipes; location of fittings and restrictions that could interfere with cleaning and lining operations; location, diameter, and connections of temporary bypass, if required; and all other details of the pipe within the scope of the contract between the purchaser and the constructor.

2. Thickness of cement-mortar lining. Nominal thickness of cement-mortar lining required (Sec. 4.4.5).

3. Services provided by purchaser. Description of all services or field operations to be performed by the purchaser, such as locating the main to be cleaned and lined; removal and replacement of line valves; operation of valves; tagging all valves that separate the main to be cleaned and lined from the water system to prevent accidental opening; shutting off all inflow of water from connecting pipelines; locating and operating blowoffs; connecting and disconnecting temporary bypasses to customer services; obtaining all permits required for the work; handling all customer contacts; disinfection; and conducting flow tests.

4. Additional work to be performed by constructor. Description of work, including repairs to deteriorated pipe; extra thickness of lining over the rivet heads and lockbar seams; excavation, backfill, and resurfacing work at access excavations; method of opening and closing access openings in the pipeline; supplying, laying, and removing temporary bypass pipe; and operation of main-line or blowoff valves.

NOTE: When it is necessary to repair deteriorated pipe before lining, the pipe will be repaired by the purchaser or under provisions of the contract between the purchaser and the constructor.

5. Water for cleaning and lining operations. Location of water sources, method of supplying, quantity available, and pressure information.

6. Disposal of cleaning water and debris. Requirements for the disposal of cleaning water, old lining, and other debris; instructions regarding permits from the responsible authorities.

7. Permissible cement-mortar materials. Preference for, or any restrictions on, type of portland cement or admixtures to be used in lining mortar.

8. Purchaser options. Options that may be included in the purchaser's specifications after reviewing the following items in the sections noted:

- a. Affidavit of compliance (Sec. 6.3).
- b. Portland cement (Sec. 4.3.1).
- c. Use of admixtures (Sec. 4.3.2, 4.4.1, and 4.4.2).
- d. Mortar lining thickness (Sec. 4.4.5).
- e. Access openings (Sec. 4.5.1).
- f. Traffic control (Sec. 4.5.1).
- g. Surface finish (Sec. 4.5.4).
- h. Cleaning of valves; new bolts and gaskets (Sec. 4.5.6.1 and 4.5.6.2).
- i. Curing by purchaser (Sec. 4.5.7.3).
- j. Temporary bypass to customers (Sec. 4.6).
- k. Disinfection of temporary bypass (Sec. 4.6.2).
- l. Leaking valves (Sec. 4.7.2).
- m. Access openings for lining for new pipe (Sec. 4.8.1).
- n. Surface finish for new pipe (Sec. 4.8.4).

III.B. *Modification to Standard.* Any modification to the provisions, definitions, or terminology in this standard must be provided in the purchaser's specifications.

**IV. Major Revisions.** The major changes made to the standard in this edition include the following:

1. The title of the standard was revised.
2. Definitions (Sec. 3) have been revised.
3. References to pozzolanic materials have been removed from Sec. 4.4.
4. Table 1 on recommended thicknesses of cement–mortar linings has been revised.
5. Sec. 5.1 has been revised for sampling and testing frequency and strength of lining.

**V. Comments.** If you have any comments or questions about this standard, please call the AWWA Volunteer and Technical Support Group, (303) 794-7711 ext. 6283, FAX (303) 795-7603, or write to the group at 6666 W. Quincy Ave., Denver, CO 80235.

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# **AWWA STANDARD FOR CEMENT-MORTAR LINING OF WATER PIPELINES IN PLACE— 4 IN. (100 mm) AND LARGER**

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## **SECTION 1: GENERAL**

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### **Sec. 1.1 Scope**

This standard describes the requirements for the materials and application of a cement-mortar lining to the inside surface of 4-in. (100-mm) and larger new and old steel, ductile-iron, and cast-iron water pipelines that have been previously installed, as well as related work. The application requirements are (1) that the lining of all straight pipe sections and long radius bends shall be performed by a machine that progresses uniformly through the pipe, applies cement mortar against the pipe surfaces, and is provided with an attachment for mechanically troweling the mortar to obtain a smooth lining of uniform thickness with smooth transitions over joints; and (2) that the lining of bends, specials, and areas adjacent to valves shall be machine sprayed and hand troweled or, where machine placement is impractical, shall be performed manually.

### **Sec. 1.2 Purpose**

The purpose of this standard is to define the minimum requirements for cement-mortar lining of water pipelines, 4 in. (100 mm) and larger, in place, including materials, design, and methods for construction.

### Sec. 1.3 Application

This standard can be referenced in specifications for cement-mortar lining of water pipelines in place, 4 in. (100 mm) and larger.

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## SECTION 2: REFERENCES

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This standard references the following documents. In their latest editions, these documents form a part of this standard to the extent specified within this standard. In any case of conflict, the requirements of this standard shall prevail.

ASTM\* C40—Standard Test Method for Organic Impurities in Fine Aggregates for Concrete.

ANSI†/ASTM C143—Standard Test Method for Slump of Hydraulic Cement Concrete.

ANSI/AWWA C500—Standard for Metal-Seated Gate Valves for Water Supply Service.

ANSI/AWWA C504—Standard for Rubber-Seated Butterfly Valves.

ANSI/AWWA C509—Standard for Resilient-Seated Gate Valves for Water Supply Service.

ASTM C150—Standard Specification for Portland Cement.

ASTM C494—Standard Specification for Chemical Admixtures for Concrete.

ASTM E11—Standard Specification for Wire Cloth and Sieves for Testing Purposes.

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## SECTION 3: DEFINITIONS

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The following definitions shall apply in this standard:

1. *Constructor*: The party that provides the work and materials for placement or installation.
2. *Purchaser*: The person, company, or organization that purchases any materials or work to be performed.

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\*American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

†American National Standards Institute, 11 W. 42nd St., New York, NY 10036.

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## SECTION 4: REQUIREMENTS

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### Sec. 4.1 Workmanship

All work shall be performed by trained personnel under the supervision of experienced persons skilled in the application of cement-mortar lining to pipelines in place.

### Sec. 4.2 Equipment

The constructor's equipment for cleaning, applying, and troweling cement-mortar in the pipe and for curing the cement-mortar lining shall be so designed and manufactured and in a condition to permit the workers to follow the procedure and obtain the results prescribed in this standard.

### Sec. 4.3 Materials for Construction

4.3.1 *Portland cement.* Portland cement shall conform to the requirements of ASTM C150 for type I or type II cement, or as otherwise specified by the purchaser.

4.3.2 *Admixtures.* To improve workability, density, and strength in the mortar, admixtures conforming to ASTM C494 may be used at the option of the constructor, unless otherwise required by the purchaser's specifications, provided that the ratio of admixture to portland cement does not exceed that used in the qualification tests of ASTM C494. No admixtures shall be used that would have a deleterious effect on potable water flowing in the pipe after the lining has been placed.

4.3.3 *Sand.* Sand shall consist of inert granular material. The grains shall be strong, durable, and uncoated. The sand shall be well graded and shall pass a No. 16 mesh screen, with not more than 5 percent passing a US Standard Sieve No. 100. (For screen and sieve sizes, refer to ASTM E11.)

4.3.3.1 *Deleterious substances in sand.* Sand shall be clean. The total combined weight of dust, clay, loam, lumps, shale, soft or flaky particles, mica, oil, alkali, and other deleterious substances shall not exceed 3 percent of the total combined weight of the deleterious substances and the sand containing them. In addition, the following limitations shall apply to specific substances:

Substance	Maximum Allowable Percentage by Weight
Shale	1
Clay lumps	1
Mica and deleterious substances other than shale and clay lumps	2

4.3.3.2 *Organic impurities.* Sand shall not show a color value darker than the "reference standard color solution" prepared as required in ASTM C40.

4.3.4 *Water.* Water for mixing mortar shall be clean and free of mud, oil, and injurious amounts of organic material or other deleterious substances. Potable water shall be used.

## **Sec. 4.4 General Cement-Mortar Lining Design**

4.4.1 *Composition.* Mortar for the lining shall be composed of cement, sand, and water that have been well mixed and are of such consistency as to produce a dense, homogeneous lining. Unless otherwise specified by the purchaser, the mortar may also include admixtures.

4.4.2 *Proportions.* The approximate proportions of cement and sand in the mortar for the lining shall be 1 part of portland cement to 1-1½ parts of sand by volume. The exact proportions shall be determined by the characteristics of the sand used. Admixtures (Sec. 4.3.2), if added, shall be used in strict compliance with the manufacturer's printed recommendations.

4.4.3 *Water content.* The water content shall be the minimum quantity that produces a workable mixture, allowing for moisture collecting on the interior of the pipe surfaces. Slump tests should be made periodically on freshly mixed mortar immediately before the mortar is conveyed to the lining machine. The tests shall be made in accordance with ANSI/ASTM C143. Nominal slumps of cement-mortar mixes for application of linings are indicated in Figures 1 and 2.

4.4.4 *Mixing.* Mortar shall be mixed long enough to obtain maximum plasticity. The mortar shall be used before initial set.

### **4.4.5 Thickness of lining.**

4.4.5.1 *General requirement.* The lining shall be uniform in thickness within the allowable tolerance, except at joints or deformations in the pipeline. Cement-mortar lining thickness shall be in accordance with Table 1, unless otherwise specified by the purchaser. If a cement-mortar lining thickness greater than ½ in. (13 mm) is required by the purchaser, the constructor shall have the option to apply the mortar lining in multiple applications. The thickness measuring device shall be agreed on by the constructor and purchaser.

4.4.5.2 *Thickness over rivets and lockbar.* The thickness of cement-mortar lining over the top of rivet heads and lockbar longitudinal seams of steel pipe shall not be less than ⅛ in. (3.2 mm), unless otherwise specified by the purchaser.

## Sec. 4.5 Methods for Construction of Rehabilitated Pipelines

4.5.1 *Access openings—general requirements.* All access openings necessary for the lining work shall be prepared and closed by the constructor, unless otherwise specified in the purchaser's specifications. Traffic control shall be as defined in the purchaser's specifications.

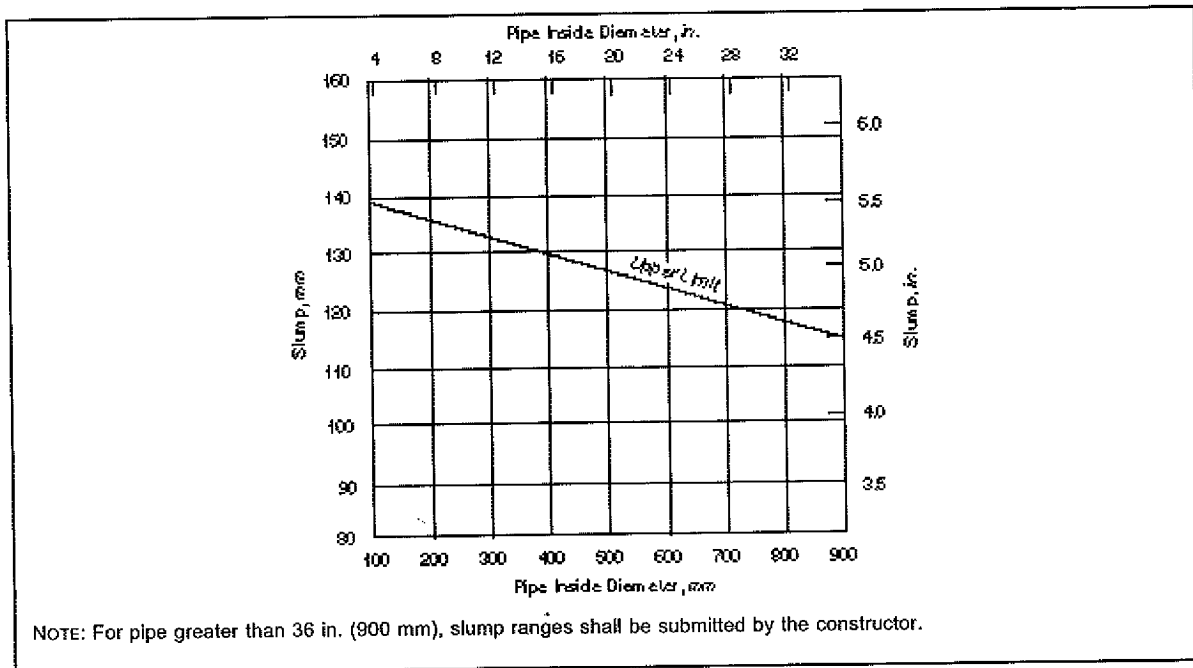


Figure 1 Nominal slumps of cement-mortar mixes for application of pipe linings using pump feed

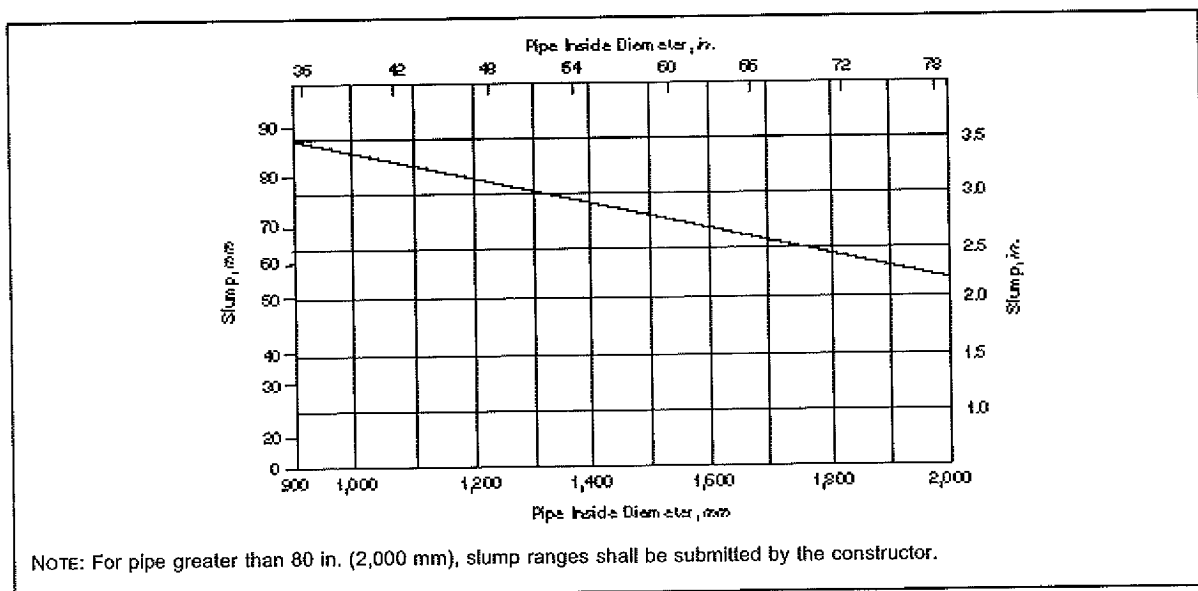


Figure 2 Slump limits of cement-mortar for application of pipe linings using mechanical feed

Table 1 Recommended thickness of cement-mortar lining for pipelines in place

Table 1. Recommended thickness of carbon steel pipe									
Pipe Diameter		Type of Pipe							
		Old Steel		Old and New Gray Cast Iron and Ductile Iron		New Steel		Tolerance	
		<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>
4-10	100-250	$\frac{5}{16}$	8	$\frac{3}{16}$	4.8	$\frac{1}{4}$	6.3	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
11-23	280-580	$\frac{3}{8}$	10	$\frac{1}{4}$	6.4	$\frac{5}{16}$	8	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
24-36	600-900	$\frac{7}{16}$	11.1	$\frac{5}{16}$	8	$\frac{3}{8}$	10	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
≥36	≥900	$\frac{9}{16}$	14.3	$\frac{5}{16}$	8	$\frac{1}{2}$	13	$-\frac{1}{16}, +\frac{3}{16}$	-1.6, + 4.8

NOTE: For badly deteriorated pipe or abnormal use, the purchaser should specify a greater thickness of lining as engineering judgment indicates.

#### 4.5.2 Preparation of pipe surface.

4.5.2.1 Cleaning interior. The interior surfaces of pipe to be lined shall be cleaned by methods approved by the purchaser to remove corrosion products; chemical or other deposits; loose and deteriorated remains of old lining materials; oil; grease; and accumulations of water, dirt, and debris. When the method of cleaning the pipe does not include the use of water, laterals less than 2 in. (50 mm) in diameter shall be cleared after cleaning by backflushing with air or water wherever necessary or as required by the purchaser.

4.5.2.2 Lockbar or riveted steel pipe. The area adjacent to the lockbar or rivets shall be inspected after initial cleaning and may require cleaning by hand before lining.

#### 4.5.3 Machine application of mortar lining.

4.5.3.1 Cleanup ahead of machine. Immediately before the lining machine travels through a pipeline, all foreign material shall be removed. This includes sand and loose mortar that might have accumulated since the preparation of surfaces was completed.

4.5.3.2 Lining procedure. The lining shall be applied in one or more courses by a machine traveling through the pipe and distributing the mortar uniformly across the full section and long radius bends of the pipe. The discharge shall be from the rear of the machine so that the newly applied mortar will not be marked. The rate of travel of the machine and the rate of mortar discharge shall be mechanically regulated to produce a smooth surface and uniform thickness throughout. The mortar shall be densely packed and adhere wherever applied; there shall be no injurious rebound.

4.5.3.3 Procedure at rivets and open joints. In steel pipe 24 in. (600 mm) and larger in diameter, mortar may be applied manually ahead of the lining machine for uniform thickness over the line of rivet heads and where steel plates overlap. Open joints shall be packed with mortar before lining where necessary to provide a smooth surface across the joint. The mortared areas shall be moist and free of surface checking before proceeding with the machine lining.

4.5.4 *Surface finish.* The mortar lining in all pipe of the diameters described in this standard shall be mechanically troweled except for the places where hand troweling or the placement of an untroweled lining is expressly allowed by this standard (Sec. 4.5.4.2).

4.5.4.1 Troweled linings. The lining machine shall be provided with attachments for mechanically troweling the mortar. Both the application and troweling of the mortar shall take place at the rear of the machine so that the freshly placed and troweled mortar will not be damaged. The trowel attachment shall be such that the pressure applied to the lining will be uniform and produce a lining of uniform thickness with a smooth, finished surface, free of spiral shoulders. The finished surface of machine-placed troweled linings in pipe 24 in. (600 mm) and larger in diameter shall be examined as described in Sec. 4.5.4.1.1 and shall meet the performance criteria in Sec. 5.2.7.

4.5.4.1.1 Procedures. In the reach of pipe 24 in. (600 mm) and larger in diameter that has been lined and troweled in each day's run, 10 places shall be selected in straight sections of the pipe according to a predetermined sampling method agreed on by the purchaser and constructor. In each of the 10 places, a 12-in. (300-mm) straightedge shall be laid parallel to the axis of the pipe. In 9 of the 10 places, the space between the lined surface and the straightedge shall at no point be greater than  $\frac{1}{16}$  in. (1.6 mm) for smooth-bore pipe in good condition and  $\frac{1}{8}$  in. (3.2 mm) for pipe with a rough or irregular interior. This test shall not apply in places where the unlined pipe is too rough or irregular for the required tolerances to be met by machine lining.

4.5.4.2 Untroweled linings. The finished surface shall be smooth and regular, except that it may exhibit a slightly dimpled appearance similar to the surface of an orange. Ridges or uneven buildup caused by irregularity in the travel rate of the machine shall not be allowed.

4.5.4.2.1 Allowable untroweled lining. Untroweled cement-mortar lining is acceptable in the lining of dead-end sections, in the lining of pipe that is excessively

out of round, and in pipe 20 in. (500 mm) in diameter and smaller, when lining pipeline segments containing cocked joints, sharp bends, and angle points.

4.5.5 *Hand application of mortar lining.* Hand-placed mortar shall have a uniform surface with smooth transitions to adjacent machine-placed linings.

4.5.5.1 Allowable hand placement. In pipe 24 in. (600 mm) and larger in diameter, in places where machine placing of cement-mortar lining is impractical (such as sharp bends, specials, or areas closely adjacent to valves), lining shall be performed by hand. The purchaser may permit the correction of any defect by hand application.

4.5.5.2 Materials. Cement mortar for handwork shall be of the same materials as the mortar for machine-placed lining.

4.5.5.3 Cleaning. Areas to be lined shall be cleaned as specified in Sec. 4.5.2 and, if necessary, shall be moistened with water immediately before placing the hand-applied mortar.

4.5.5.4 Troweling. Steel finishing trowels shall be used for the hand application of cement mortar, except at bends. The outer edges of hand-troweled areas may be brushed to reduce the abutting offset.

4.5.5.5 Timing. All hand-finishing work in a section of pipeline shall be completed within 24 hr after completion of the machine application of mortar lining to that section. If necessary, application of mortar lining by machine shall be delayed or stopped to ensure compliance with this schedule.

4.5.6 *Special requirements at laterals and service connections.* Laterals and connections to the pipe that are being lined shall not be left obstructed by the lining operations.

4.5.6.1 Pipe less than 24 in. (600 mm) in diameter. After the mortar lining has been placed, but before it takes final set, laterals and services 2 in. (50 mm) and smaller in diameter shall be cleared by backflushing with air or water wherever necessary or as required by the purchaser. The backflushing shall be performed in a manner that will not damage the freshly applied lining. Unless a lateral is to be cleaned and lined, it shall not be excavated. The constructor shall clean all interior surfaces of main-line valves after the lining machine has passed. The constructor may, with the purchaser's approval, remove the bonnets and gates from main-line gate valves to accomplish the cleaning; the bonnets and gates shall then be replaced. The constructor shall, with the purchaser's approval, remove all butterfly valves from the main line when necessary and then reinstall them after the lining operation. New



bolts and gaskets for bonnet or valve replacements meeting the requirements of the applicable AWWA valve standard (ANSI/AWWA C500, ANSI/AWWA C504, or ANSI/AWWA C509) shall be supplied by the constructor, unless otherwise provided by the purchaser's specifications.

4.5.6.2 Pipe 24 in. (600 mm) and larger in diameter. Before the lining is placed, the openings in the pipeline that lead to air valves, blowoffs, manholes, and appurtenances, as well as to laterals and connections from the pipeline, shall be temporarily covered or plugged with suitable devices. These shall be removed later without damaging the cement mortar. When working inside the pipe is impractical, the constructor may clear connecting pipelines by flushing and, with the purchaser's approval, clean gate valves by removing bonnets and gates. The constructor shall, with the purchaser's approval, remove all butterfly valves from the main line when necessary. New bolts and gaskets for bonnet or valve replacement that meet the requirements of the applicable AWWA valve standard shall be supplied by the constructor, unless otherwise provided by the purchaser's specifications.

#### 4.5.7 *Curing.*

4.5.7.1 General requirements. Curing operations shall begin immediately following completion of the machine placement of the mortar lining in a section of pipeline. The section of pipe shall be closed with airtight covers over all openings and shall be maintained in a moist condition.

4.5.7.2 Curing by constructor. When a section of pipeline has been completed, the constructor shall be responsible for curing the mortar lining until the section is filled with water by the purchaser, or until the lining has been accepted by the purchaser, but in no case for more than seven days. In the event that the purchaser cannot fill the pipeline within seven days after the lining has been placed, or within the time specified by the purchaser, the constructor may be directed to extend the curing period.

4.5.7.3 Curing by purchaser. Sections of the mortar-lined pipe shall be filled with water as soon as possible after lining operations in such a manner as not to damage the lining. There shall be no pressure on any section until the mortar lining has been in place for at least 24 hr, except for pressure induced by variations in the grade of the pipeline. The filling shall be performed by the purchaser unless the purchaser's specifications stipulate otherwise.

4.5.7.4 Sprinkling exterior. The exterior surfaces of pipe exposed to sunlight shall be sprinkled with water in the daytime during the period of lining, finishing,

and curing when sprinkling is required, as determined by the constructor or the purchaser, to prevent cracking of the lining.

## **Sec. 4.6 Temporary Bypass to Customers**

**4.6.1 General description.** Temporary bypass facilities may be required to maintain service to customers connected to pipelines being cleaned and cement-mortar lined. It shall be the purchaser's responsibility to design the bypass system, including a layout of the bypass piping, customers to be serviced, the specified bypass pipe diameter to be used in specific locations, as well as the type and locations of temporary fire hydrants. When required by the purchaser, the constructor shall provide, install, maintain, and remove temporary bypass pipelines in accordance with the purchaser's specifications.

**4.6.2 Pipe and materials.** The pipe, hose, and other materials shall be supplied by the constructor for use in conjunction with temporary bypass pipe and connections to services and laterals. These materials shall withstand the pressures indicated and all other conditions of use. The pipe and fittings shall be watertight and shall be disinfected before being put into service. Disinfection shall be performed by the constructor unless the purchaser's specifications stipulate otherwise.

**4.6.3 Procedure.** Temporary bypass facilities shall include hoses and necessary outlets and fittings to each service connection. The constructor shall provide, install, and maintain the temporary bypass lines in a safe and operative condition at all times. After service has been restored to a section of water main, the constructor shall remove the temporary bypass and related facilities and shall leave the work site in a neat and orderly condition.

**4.6.4 Supply of water to feed temporary bypass.** The purchaser shall be responsible for the availability of water at sufficient pressure and in sufficient volume to supply the bypass system. The purchaser shall provide taps or other suitable feed points to which the bypass may be connected. If there are no hydrants or aboveground taps at convenient locations for bypass connection, the purchaser shall either install outlets on the system as required or direct the constructor to install the connections.

**4.6.5 Temporary connection to customers.** Before starting any work that will affect service to customers, the constructor shall notify the purchaser in advance to allow the purchaser to notify all customers accordingly. All shutoffs to customer service lines and all connections from the bypass line to the customer service lines shall be made by the constructor. If required by the purchaser, bypass service

connections requiring excavation, cutting, or tapping shall be made by the constructor unless specifically included in the purchaser's specifications. After the pipeline has been cleaned and lined, the constructor shall clear the service lines by backflushing with air or water. Where it is impossible to clear the service line because the customer's premises cannot be entered, the constructor shall excavate and clear the service at the main. The restoration of service to the customer, including disconnection from the bypass system and reconnection to the pipeline, is the constructor's responsibility unless otherwise required by the purchaser's specifications.

## **Sec. 4.7 Contingent Work**

**4.7.1 Obstructions.** Obstructions in the pipeline that prohibit the passage of cleaning or lining equipment shall be removed by the constructor. These include, but are not limited to

1. Bends, reducers, valves, or other fittings not indicated on drawings provided by the purchaser.
2. Overpoured lead joints.
3. Deformations in the pipe wall, out-of-round pipe, or defective pipe.
4. Protruding lateral or service connections.
5. Internal tie rods.
6. Successive cocked joints.

**4.7.2 Leaking valves.** The purchaser shall be responsible for preventing water from existing connections from entering the pipe before lining has been completed. The purchaser shall be responsible for the repair or replacement of leaking sideline valves as soon as discovered. The purchaser's specifications may require the constructor to do the actual work of repair or replacement, but even if not so required, the constructor shall be permitted, if the purchaser fails to act immediately, to excavate on one side or the other of the leaking valve, cut the pipe, and stop the leakage.

## **Sec. 4.8 Methods for Lining of New Steel Pipe**

**4.8.1 Access openings for lining.** The constructor may use existing manholes, flanged outlets, and pass holes for access and material feed points during the lining operations. Access openings shall be removed or replaced in accordance with purchaser's specifications. Cement-mortar lining of closures and adjacent areas shall be applied by machine or hand methods. Access to the pipeline for placing

field-applied cement-mortar lining may be obtained by one or more of the following methods:

1. Temporarily omitting short "roll-out" sections of pipe.
2. Deferring the installation of closing sections of pipe until after completion of the lining.
3. Cutting "half-cap" openings in the installed pipeline.
4. Cutting temporary feed-point manholes in the installed pipeline.

4.8.2 *Preparation of pipe surfaces.* The interior surface of the pipeline shall be cleaned before placement of cement-mortar lining. The pipe interior surface shall be free of oil, grease, and accumulations of water. Loose mill scale, dirt, rust, and construction debris shall be removed from the interior surface of the new pipeline. This may be performed by using a stiff street broom in large pipe or a drag brush in small pipe. Shot or sandblasting shall not be required.

4.8.3 *Machine application of cement-mortar lining.*

4.8.3.1 *Cleanup ahead of machine.* Immediately before the travel of the lining machine through a pipeline, all foreign material, such as sand, loose mortar, dirt, and debris shall be removed.

4.8.3.2 *Lining procedure.* The lining shall be applied in one or more courses by a machine traveling through the pipe and distributing the mortar uniformly across the full section and long radius bends of the pipe. The discharge shall be from the rear of the machine so that the newly applied mortar will not be marked. The rate of travel of the machine and the rate of mortar discharge shall be mechanically regulated to produce a smooth surface and uniform thickness throughout. The mortar shall be densely packed and adhere wherever applied; there shall be no injurious rebound.

4.8.3.3 *Procedure at joints.* Joints shall be packed with mortar before lining where necessary to provide a smooth surface across the joint. These mortared areas shall be moist and free of surface checking before proceeding with the machine lining over the joint area.

4.8.4 *Surface finish.* The mortar lining in all pipe of the diameters described in this standard shall be mechanically troweled except for the places where hand troweling or the placement of an untroweled lining is expressly allowed by this standard. (Sec. 4.8.4.2.1).

4.8.4.1 *Troweled linings.* The lining machine shall be provided with attachments for mechanically troweling the mortar. Both the application and troweling of

the mortar shall take place at the rear of the machine so that the freshly placed and troweled mortar will not be damaged. The trowel attachment shall be such that the pressure applied to the lining will be uniform and produce a lining of uniform thickness with a smooth, finished surface, free of spiral shoulders. The finished surface of machine-placed troweled lining in pipe 24 in. (600 mm) and larger in diameter shall be examined as described in Sec. 4.5.4.1.1 and shall meet the performance criteria in Sec. 5.2.7.

4.8.4.2 Untroweled linings. The finished surface shall be smooth and regular except that it may exhibit a slightly dimpled appearance similar to the surface of an orange. Ridges or uneven buildup caused by irregularity in the travel rate of the machine shall not be allowed.

4.8.4.2.1 Untroweled lining may be allowed in sections of a pipeline where the pipe to be lined is excessively out of round.

4.8.5 *Hand application of cement-mortar lining.* Hand-placed mortar shall have a uniform surface with smooth transitions to adjacent machine-placed lining.

4.8.5.1 Allowable hand placement. In pipe 24 in. (600 mm) and larger in diameter, in places where machine placing of cement-mortar lining is impractical, (such as sharp bends, specials, or areas closely adjacent to valves), lining shall be performed by hand.

4.8.5.2 Materials. Cement mortar for handwork shall be of the same materials as the mortar for machine-placed lining.

4.8.5.3 Cleaning. Areas to be lined shall be cleaned as specified in Sec. 4.8.2 and, if necessary, shall be moistened with water immediately before placing the hand-applied mortar.

4.8.5.4 Troweling. Steel finishing trowels shall be used for the hand application of cement mortar, except at bends. The outer edges of hand-troweled areas may be brushed to reduce the abutting offset.

4.8.5.5 Timing. All hand-finishing work in a section of pipeline shall be completed within 24 hr after completion of the machine application of mortar lining to that section. If necessary, application of mortar lining by machine shall be delayed or stopped to ensure compliance with this schedule.

4.8.6 *Special requirements at openings.* Laterals and connections to the pipe being lined shall not be left obstructed by the lining operations. Openings in the pipeline for manholes, outlets, and blowoffs shall be temporarily closed and covered with removable coverings or other suitable devices to prevent the intrusion of the

cement mortar into the openings. On completion of the lining, the constructor shall remove all of these covers and shall repair any lining damaged in the process.

#### 4.8.7 *Curing.*

4.8.7.1 General requirements. Curing operations shall begin immediately following completion of the machine placement of the cement–mortar lining in a section of pipeline. The section of pipe shall be closed with airtight covers over all openings, and the lining shall be maintained in a moist condition. The pipeline shall remain closed and the moist atmosphere maintained until the pipeline is filled.

4.8.7.2 Curing by constructor. When a section of pipeline has been completed, the constructor shall be responsible for careful curing of the cement–mortar lining until the section is filled with water by the purchaser, or until the lining has been accepted by the purchaser, but in no case for more than seven days. In the event that the purchaser cannot fill the pipeline within seven days after the lining has been placed, or within the time specified by the purchaser, the purchaser may direct the constructor to extend the curing period.

4.8.7.3 Curing by purchaser. Sections of the mortar-lined pipe shall be filled with water as soon as possible after lining operations in such a manner as not to damage the lining. There shall be no pressure on any section until the mortar lining has been in place for at least 24 hr, except for pressure induced by variations in the grade of the pipeline. The filling should be performed by the purchaser, unless the purchaser's specifications stipulate otherwise.

4.8.7.4 Sprinkling exterior. The exterior surfaces of pipe exposed to sunlight shall be sprinkled with water and kept moist in the daytime during the period of lining, finishing, and curing when sprinkling is required, as determined by the constructor or the purchaser, to prevent cracking of the lining.

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## SECTION 5: VERIFICATION

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### Sec. 5.1 Inspection

All materials provided and work performed will be subject to inspection. The constructor shall provide, without additional cost to the purchaser, samples and reasonable assistance for the inspection of materials and workmanship.

5.1.1 *Sampling and testing frequency.* A set of at least two standard test cylinders shall be made each day from the cement–mortar lining for each shift to

satisfy the quality control requirements of Sec. 5.1.2. Additional cement–mortar testing shall be defined in the purchaser’s specifications.

5.1.2 *Strength of cement–mortar lining.* Cement–mortar test cylinders shall attain a minimum compressive strength of 4,500 psi (31 MPa) in 28 days. Pipe with cement–mortar lining that does not meet the strength requirements described in this standard shall be subject to rejection.

## **Sec. 5.2 Inspection of Rehabilitated Pipelines**

5.2.1 *Responsibility of purchaser and constructor.* The entire procedure for applying cement–mortar lining may be subject to continuous inspection by the purchaser, but the inspection shall not relieve the constructor of the responsibility to provide material and perform work in accordance with this standard.

5.2.2 *All phases accessible to purchaser.* The purchaser shall have free access to all areas, places, or facilities concerned with the providing of material or the performance of work according to the provisions of this standard.

5.2.3 *Constructor to assist purchaser.* The constructor shall provide the purchaser reasonable assistance, without additional charge, in performing inspection duties and, specifically, in obtaining information concerning the material used and the progress of the work.

5.2.4 *Pipe inspection procedures.* The purchaser may inspect the pipeline following the application of the cement–mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with this standard.

5.2.4.1 *Small-pipe inspection procedure.* The inspection of the lining in pipe that is too small for a person to enter, less than 24-in. (600-mm) inside diameter (ID), may be made by television or from both ends of the lined pipe segment by using strong lights or mirrors. The purchaser may determine the quality of the lining from this visual inspection. Where practical, on pipelines that are less than 24-in. (600-mm) ID, the lining may be inspected by the purchaser before the lining has attained its initial set. (It is not practical to remove defective cement–mortar lining that has reached its initial set.)

5.2.4.2 *Large-pipe inspection procedure.* In pipe 24-in. (600-mm) ID and larger, a manual, visual inspection of the lined pipe interior may be made by the purchaser to determine the quality of the lining and to identify defective areas in the lining for repair. Physical inspection shall adhere to appropriate safety precautions for confined spaces.

5.2.5 *Defective lining.* Defects in cement–mortar lining include, but are not limited to, sand pockets, voids, oversanded areas, excessively cracked and drummy areas, areas of lining thinner than specified, and areas of unsatisfactory surface finish.

5.2.6 *Repair of defective lining.*

5.2.6.1 Pipe less than 24-in. (600-mm) ID. In pipe less than 24-in. (600-mm) ID, the defective lining shall be removed in total from the pipe segment before the lining has reached its initial set. The pipe segment shall then be relined in full compliance with project specifications. Defective lining rejected after initial set shall be repaired by the most practical method as determined by the purchaser, in consultation with the constructor.

5.2.6.2 Pipe 24-in. (600-mm) ID and larger. In pipe 24-in. (600-mm) ID and larger, defects in lining shall be repaired. Small defective areas shall be repaired by manual removal of the defective lining and reapplication of cement–mortar lining. Defective areas encompassing the full diameter of the pipe shall be replaced by machine wherever practical.

5.2.7 *Guarantee and performance criteria.*

5.2.7.1 Guarantee. If an examination by the purchaser of the cement–mortar lining work within a period of one year after final completion and acceptance of the work reveals evidence of defective materials or workmanship as defined in this standard, then the purchaser shall act according to the remedies in Sec. 5.2.6 of this standard. The constructor shall bear the expense and perform the repair of defective work in a manner acceptable to the purchaser.

5.2.7.2 Performance criterion—surface finish. The Hazen–Williams  $C$  factor ( $C_{hw}$ ) is a generally accepted criterion for determining the acceptability of surface finish of cement–mortar lining and restoration of carrying capacity in rehabilitated pipelines. Table 2 and Sec. 5.2.7.1 are given as a guarantee for acceptable performance in smooth-bore pipe.

## Sec. 5.3 Inspection of New Steel Pipe

5.3.1 *Responsibility of purchaser and constructor.* The entire procedure of applying cement–mortar lining may be subject to continuous inspection by the purchaser, but this inspection shall not relieve the constructor of responsibility to provide material and perform work in accordance with this standard.



Table 2 Acceptable performance for smooth-bore pipe

Pipe Inside Diameter		Guaranteed
<i>in.</i>	( <i>mm</i> )	$C_{hw}$ Factor*
4	(100)	90
6	(150)	100
8	(200)	110
10	(250)	115
12	(300)	120
14–20	(300–350)	125
>20	(>500)	130

\*Based on nominal inside of pipe diameter before cement–mortar lining. The purchaser may specify that flow tests be conducted by an independent testing firm, by the constructor, or by the purchaser. The purchaser may establish liquidated damages to be assessed against the constructor when the lined pipe does not achieve the guaranteed  $C_{hw}$  factor.

5.3.2 *All phases accessible to purchaser.* The purchaser shall have free access to all areas, places, or facilities concerned with the providing of material or the performance of work according to the provisions of this standard.

5.3.3 *Constructor to assist purchaser.* The constructor shall provide the purchaser reasonable assistance, in performing the inspection duties and specifically in obtaining information concerning the material used and the progress of the work.

5.3.4 *Pipe inspection procedures.* The purchaser may inspect the pipeline following the application of the cement–mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with this standard.

5.3.4.1 *Small-pipe inspection procedure.* The inspection of lining in pipe that is too small for a person to enter, less than 24-in. (600-mm) ID, may be made by television or from both ends of the lined pipe segment by using strong lights or mirrors. The purchaser may determine the quality of the lining from this visual inspection. Where practical, on pipelines that are less than 24-in. (600-mm) ID, the lining may be inspected by the purchaser before the lining has attained its initial set.

5.3.4.2 *Large-pipe inspection procedure.* In pipe 24-in. (600-mm) ID and larger, a manual, visual inspection of the lined pipe interior may be made by the purchaser to determine the quality of the lining and to identify defective areas in the lining for repair. Physical inspection shall adhere to appropriate safety precautions for confined space.

5.3.5 *Defective lining.* Defects in cement–mortar lining include, but are not limited to, sand pockets, voids, oversanded areas, excessively cracked and drummy

areas, areas of lining thinner than specified, and areas of unsatisfactory surface finish.

#### 5.3.6 *Repair of defective lining.*

5.3.6.1 Pipe less than 24-in. (600-mm) ID. In pipe less than 24-in. (600-mm) ID, the defective lining should be removed in total from the pipe segment before the lining has reached its initial set. The pipe segment shall then be relined in full compliance with project specifications. Defective lining rejected after initial set shall be repaired by the most practical method as determined by the purchaser, in consultation with the constructor.

5.3.6.2 Pipe 24-in. (600-mm) ID and larger. In pipe 24-in. (600-mm) ID and larger, defects in lining shall be repaired. Small defective areas shall be repaired by manual removal of the defective lining and by reapplication of mortar lining. Defective areas encompassing the full diameter of the pipe shall be replaced by machine wherever practical.

5.3.6.2.1 Lining cracks. Temperature and shrinkage cracks in the mortar lining less than  $\frac{1}{16}$  in. (1.6 mm) in width need not be repaired. Cracks wider than  $\frac{1}{16}$  in. (1.6 mm) need not be repaired if it can be demonstrated to the satisfaction of the purchaser that the cracks will heal autogenously under continuous soaking in water. The autogenous healing process may be demonstrated by any procedure that keeps the lining of the pipe continually wet or moist.

5.3.7 *Protection of lining.* Every precaution shall be taken to prevent injury to the lining. Should the constructor damage the lining at any time before completion of the contract, the damage shall be repaired conforming to the requirements of this standard.

#### 5.3.8 *Guarantee and performance criteria.*

5.3.8.1 Guarantee. If an examination by the purchaser of the cement-mortar lining work within a period of one year after final completion and acceptance of the contract work reveals evidence of defective materials or workmanship as defined in this standard, then the purchaser shall act according to the remedies in Sec. 5.3.6 of this standard. The constructor shall perform the repair of defective work in a manner acceptable to the purchaser.

5.3.8.2 Performance criterion—surface finish. The Hazen-Williams  $C$  factor ( $C_{hw}$ ) is a generally accepted criterion for determining the acceptability of surface finish of cement-mortar lining in pipelines. (Table 2 and Sec. 5.3.8.1 are given as guarantees to acceptable performance in smooth-bore pipe.)

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## SECTION 6: DELIVERY

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### **Sec. 6.1 Marking**

This standard has no applicable information for this section.

### **Sec. 6.2 Shipping**

This standard has no applicable information for this section.

### **Sec. 6.3 Affidavit of Compliance**

The purchaser may require the constructor to provide an affidavit of compliance or material test reports stating that the materials used were in compliance with the requirements of this standard. The affidavit shall be signed by the constructor.

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# **History and Development Of Water Main Rehabilitation by In-situ Cement Mortar Lining Technology**

**Joseph Dioslaki**

**Jiangwei Deng**

**Abstract:** The article expatiates on history, development, and technical advantage of Trench-less In-Place Cement Mortar Lining technology, which has been widely accepted for water main rehabilitation in USA.

**Key words:** Trench-less, In-Place Cement Mortar Lining, Water Main Rehabilitation, Technical advantage

Rehabilitation of water mains by trenchless technology methods are widely accepted in the United States. In place rehabilitation of water mains are generally accomplished by the following methods:

- Cement Mortar lining
- Epoxy Lining
- Slip-lining
- Cure-in-place
- Pipe Bursting

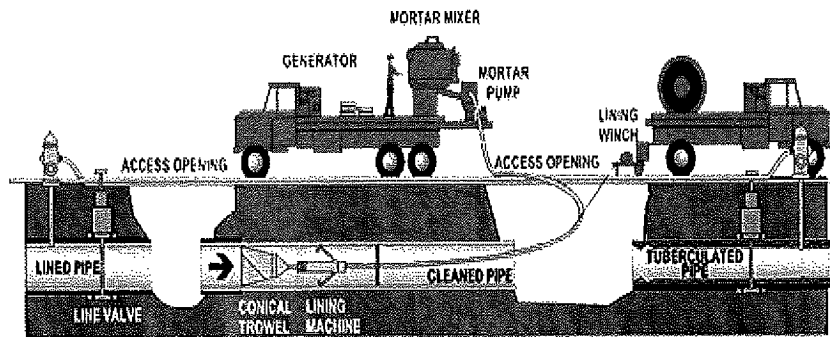
This article will address Cement Mortar Lining technology, the most widely accepted and used technology for the rehabilitation of water mains in the United States of America. The unique benefits of this method have been undiscovered in many communities throughout the world since very few introductions of this process have been made in recent times.

## **In Place Cement Mortar Lining Operating Procedures**

The following steps briefly describe the basic operating procedures:

1. Install Bypass
2. Excavate Access Pits
3. Clean Pipe
4. Apply Mortar
5. Clear Services
6. Cure Mortar

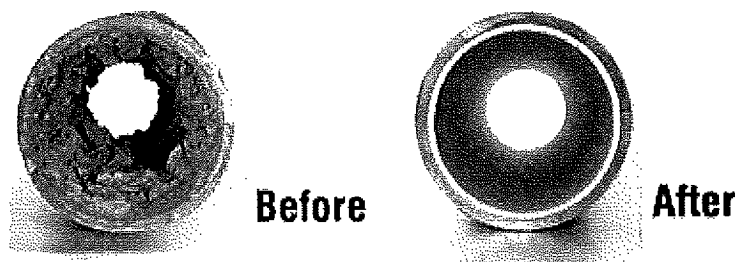
7. Pressure Test Pipe
8. Disinfect Pipe
9. Tie In To Existing System
10. Remove Bypass and Connect Services



In Place Cement Mortar Lining Operating Procedures

### History and Development of Cement Mortar Lining in USA

In the United States of America between 300 and 400 miles (between 482 and 643 km.) of water main are rehabilitated with the **In-Place Cement Mortar Lining Process** each year. This process is the most widely accepted and used technology for the rehabilitation of water mains in existence. Through the early 2000's it is estimated that over 7,000 miles (11,265 km.) of water main, ranging in diameter from 3 inches to 336 inches (7.6 cm. to 850 cm.), have been rehabilitated throughout the world by this in-place cement mortar lining process. The use of this process far exceeds the combined use of all other rehabilitation methods in existence today. The reasons for this wide acceptance are numerous. Below follows a brief history detailing cement mortar lining's evolution and growth.



Watermain Rehabilitated Before and After

The use of cement mortar as a protective lining for water mains was first reported by the French Academy of Science in 1836. By 1850, cement-lined hand coated riveted steel pipe was introduced in the United States. In the early 1930's a practical method was developed to line pipes using cement mortar by leaving the pipe intact and "in-place". This prompted the first field trial of in-place cement-mortar lining performed in Jersey City, New Jersey on a short section of 72 inch (1,830 mm) diameter steel pipe. The

success of this trial was the prelude to the 1934 cleaning and lining of 27,551 feet (8,397 m) of aged, 48 inch (1,220 mm) riveted-steel pipe supplying Newark, New Jersey. The cement mortar lining increased the Hazen-Williams<sup>1</sup> flow coefficient (from 70 to 124) to exceed its original capacity by covering over rivets and seams creating a smoother contoured pipeline, lessening disturbances in the flow stream. The cement lining also stopped all leakage that previously was occurring at seams and rivets. In 2002 this pipeline was opened, and the cement lining was observed to be in good condition.

In 1939 American Water Works Association (AWWA) published the standard for factory application of cement mortar lining to new pipe<sup>2</sup>. This standard was titled, Standard for Cement Mortar Protective Lining and Coating for Steel Water Pipe. Due to technology limitations, until 1950 the smallest diameter pipe that could be rehabilitated in-place was 24 inch (600 mm) because man entry was required to control the lining machine within the pipe. In 1950, a small diameter centrifugal lining machine that did not require man entry was developed, allowing the in-place lining of smaller diameter pipelines. As a result, in 1955 the in-place lining standard titled, AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place, Sizes 16 In. and Larger was published. By 1962 in-place cement mortar lining included pipe as small as 4 inches (100 mm) in diameter. The most recent update of this AWWA standard is dated 2000. Today technology permits in-place cement mortar lining of pipelines ranging in diameter from 3 inches (75 mm) to 28 feet (9.2m).

Beginning in the mid 1950's, a phased program by the AWWA required larger diameter water mains to be installed with an internal cement mortar lining to prevent internal corrosion and tuberculation. This requirement was the catalyst for the factory applied cement mortar lining that coats internal surfaces of new steel and ductile iron water mains being installed today. By 1965 the AWWA completed the phasing program and *required that all new steel and cast iron water mains be installed with an internal cement mortar lining*. It is clear that the benefits of cement mortar lining were understood. Since the water distribution grids in major cities throughout the United States were already mature before this date, water distributors began to notice flow reductions and discolored water due to iron oxidation and the internal buildup of corrosion. Flow reduction on the larger diameter water mains significantly affected pumping costs, while flow reductions on the smaller diameter mains alarmingly reduced flows available at fire hydrants. It quickly became evident that rehabilitation or replacement were the only options and that in-place cement mortar lining was determined to be the most economical and practical solution.

Programs were instituted to rehabilitate entire city distribution systems in a methodical fashion, starting with large diameter trunk mains, and then continuing with smaller diameter distribution grids. By 2004, some cities such as Los Angeles, California and Louisville, Kentucky had nearly completed their rehabilitation programs, while some cities such as Baltimore, Maryland and Boston, Massachusetts were in the midst of their programs. Yet other cities such as Columbia, South Carolina and Nashville, Tennessee where just beginning their rehabilitation programs.

Today, in-place cement mortar lining of cast iron and steel water mains ranging in size from 3 inches (75mm) to 28 feet (9.2m) in diameter are common practice for the economical rehabilitation of water mains in most major cities throughout the United States. These rehabilitation programs are ongoing. Water distribution agencies familiar with the cement mortar lining process maximize the use of in-place cement mortar lining since it is the most economical rehabilitation technique available. Included among them are:

• Baltimore, Maryland	• Jersey City, New Jersey
• Altoona, Pennsylvania	• Monroe County, New York
• Columbia, South Carolina	• Cleveland, Ohio
• Cincinnati, Ohio	• Los Angeles, California
• Denver, Colorado	• Boston, Massachusetts
• Louisville, Kentucky	• Nashville, Tennessee
• Chicago, Illinois	• Washington Suburban San. Com.
• New Jersey American Water Co.	• Aqua Pennsylvania

These cities and water authorities are just a few of the agencies throughout the country that have ongoing cement mortar lining rehabilitation programs. This process is the most widely accepted and used technology for the rehabilitation of water mains in existence. The cement mortar lining rehabilitation programs throughout the United States have been found to effectively double the useful service life of cast iron, ductile iron, and steel water mains, at 30 to 50 percent of replacement costs.

### **The Unique Technical Properties of In Place Cement Mortar Lining**

The application of cement mortar lining to the interior of ferrous-metal water pipelines (steel, cast iron, ductile iron) provides a smooth protective finish that indefinitely protects against internal corrosion and tuberculation. As such, the lining also prevents the recurrence of internal corrosion and tuberculation in aged water pipelines provided that proper cleaning is performed in preparation for the lining application. The lining increases pipe carrying capacities by reducing friction caused by internal surface irregularities. As a result, water distributors benefit by maximizing hydraulic carrying capacities, minimize pumping costs, preventing customer complaints of discolored water, and economically doubling pipe service life expectancies by up to 75 years.

### **Corrosion Prevention and Hydraulic performance of Cement Mortar Lining**

Cement mortar linings are unique, in that they are porous structures. Corrosion protection is achieved by the development of a highly alkaline environment within the pores. This environment is a result of the production of calcium hydroxide during cement hydration. Cement Mortar Lining (CML) is a positive way to prevent corrosion on the interior surface of cast iron pipe once and for all. The CML maintains an alkali surface on the cast iron (or ductile iron) pipe that effectively prevents corrosion for as long as the lining remains in the pipeline. This is much better than "barrier to corrosion" or a coating



system that works as a barrier and tries to prevent corrosion by keeping moisture from coming into contact with the pipe.

In addition to the water quality improvement, cement mortar lining can greatly increase the hydraulic performance of the water main. Pipeline's Hazen-Williams C factor could achieve 130~140 after being rehabilitated by cement mortar lining, which is approximately equal to new HDPE and FRP pipe (C factor is about 140). But CML typically costs less than 50% of replacement costs, and has a life span in excess of 75 years. (as the diameter increases, the proportion of savings also increases dramatically).

The difference between In-Place CML and Factory CML by way of quality

In place CML is superior to factory CML because it is made typically with a one to one ratio of silica sand to Portland cement which provides a very durable lining with compressive strengths in excess of 7,500psi while factory linings are typically a three to one ratio. Further, in-place linings are under optimum curing conditions since water is typically introduced into the main about one day after the lining is applied. Further still, the in-place lining is applied centrifugally as opposed to the factory lining in which the pipe is spun so the factory process allows segregation of the cement mortar materials. As a result, the original mixing proportion (cement/sand ratio 1:2) changes, based on the concentration of CaO, the mixing proportion ranges from 3:1 (water side) to 1:3.7 (pipe wall side). The in situ lining develops no separation of grain sizes. The cross section produces a constant mixture of 1:1 as applied.

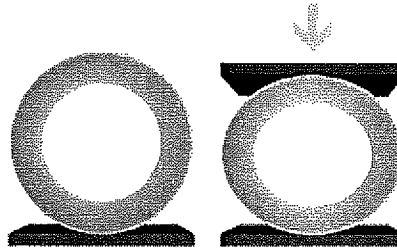
According to studies performed in Dortmund of Germany from 1972 to 1980, factory lined pipe tended to form a brittle layer on the surface of the factory lining after only three years of service. On the other hand, in-place cement mortar linings were found all to be in good condition even after 18 years of operation.

Structural performance of Cement Mortar Lining

CML itself is structural to a point. This was demonstrated in the Detroit Test which proved that a layer of less than ¼ inch CML is not as weak as thought. For a fully structural replacement that can withstand load forces and internal pressures Reinforced CML can be used on water mains 30" diameter and larger.

In 1950s, the ability of a cement-mortar lining to remain in place during deflection of the pipe was demonstrated in a deflection test conducted on a 72" (1,828.80 mm) diameter welded steel pipe section with a 5/16" (7.94 mm) wall thickness. A 1/4" (6.35 mm) cement-mortar lining was centrifugally applied and allowed to cure properly. During the following 16-month period, the lining was thoroughly dried out and the pipe was subjected to shock and vibration tests to demonstrate the integrity of the lining. At the end of this period, various loads were placed on top of the section until eventually a load section of 13" (330.20 mm) on the vertical axis was reached. Although hairline cracks appeared during the deflection, no impairment to the lining was observed either during the test or afterward when the load was removed.

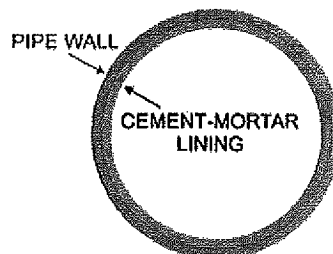
#### DURABILITY OF CEMENT-MORTAR LINING



Deflection Test of Cement Mortar Lining

A cement-mortar lining offers high compressive strength, creating an "arch action" which holds the lining in tight contact with the pipe wall. This is a major advantage over linings which rely on bond or adhesive strength to hold them in place. Cement mortar linings, while having substantial adhesion or bond, do not depend on bond to remain in place. A cement lining of proper thickness acts as a compression ring within a tension ring. It is a continuous arch which, being confined by the pipe, has no place to go. Deflection in a pipe merely increases the perimeter of the cement lining with respect to the pipe wall perimeter and thereby pushes the lining tighter against the wall of the pipe and resists the forces causing the deflection.

#### DIAGRAM OF ARCH ACTION INHERENT IN CEMENT-MORTAR LININGS



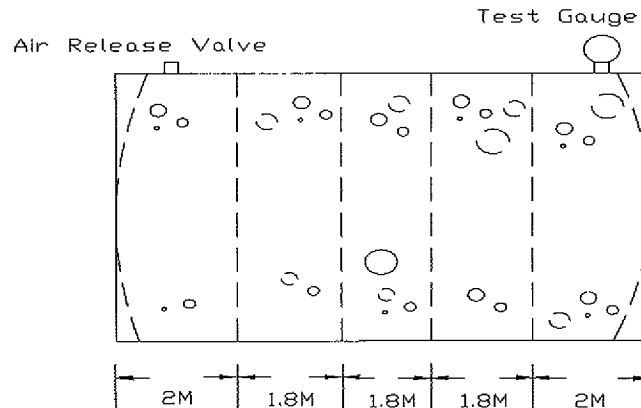
CEMENT LININGS:  
A CONTINUOUS RING,  
CONTAINED BY THE PIPE WALL

#### Ability of Cement Mortar Lining to prevent pipeline leakage

In Akron, Ohio, troubles had been experienced for some years from electrolytic action on the exterior of the city's 22 miles of parallel 36in and 48 in steel force mains. Leaks apparently resulting from corrosion started by electrolysis, continues to develop in both conduits. Investigation revealed that these leaks were caused by holes about  $\frac{1}{4}$ " in diameter, originating on the outside surface of the pipe. Resorting to tests which would simulate these actual conditions and using a comparable cement mortar lining  $\frac{1}{4}$  in thick, the engineers established to their satisfaction that holes not only of  $\frac{1}{4}$  in size, but up to and including 1  $\frac{1}{4}$  in could be spanned safely by this unsupported cement mortar lining and the leakage stopped even under water pressures of 200psi. though some "weeping"

was observable after passing 40lb. pressure in the tests, it completely stopped after 72 hours under test conditions.

Proof that Cement Mortar Lining prevents pipe leakage



Tests show that cement mortar lining prevents pipeline leakage and  
Is capable of bridging a hole over 6in diameter to withhold 305psi

In 1940 the city of Detroit, Michigan, conducted a pressure test on a length of 48" diameter x  $\frac{1}{2}$ " wall riveted steel pipe. The section to be tested was perforated with numerous holes from 1" to 6  $\frac{1}{4}$ " in diameter. Cement mortar lining was then applied to the inside of the pipe, the thickness of the lining graduating from  $\frac{1}{4}$ " at one end of the pipe to 1" at the other. After an adequate curing period, a prescribed hydraulic testing procedure was followed to determine the pressures at which failure might occur in the cement mortar lining. The large hole, 6  $\frac{1}{4}$ " in diameter, blew out at a pressure of 305psi, with a deflection before rupture of 0.05 inches. The thickness of the lining at this particular hole was  $\frac{5}{8}$ ". From this test it is concluded that cement mortar lining properly applied, provides positive protection against leakage under normal operating pressures.

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**From:** Adamczyk, Lynne (GOV)  
**Sent:** Friday, January 29, 2016 3:48 PM  
**To:** Manolakoudis, Virginia (GOV); Clayton, Stacie (GOV); Agen, Jarrod (GOV); Sachs, Tori (GOV); Thelen, Mary Beth (DEQ)  
**Subject:** Document for Review - METRA  
**Attachments:** 01.29.16 - METRA Industries Documents to Assist in Flint Water System Problems.pdf

FYI

Lynne Adamczyk  
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January 26, 2016

Mayor Dr. Karen Weaver  
1101 S. Saginaw Street  
Flint MI 48502

Dear Mayor Weaver,

We are writing regarding your efforts to correct the Flint drinking water problems. In many cases rehabilitation of existing water mains is more beneficial than replacement. Rehabilitation via in-situ cement mortar lining is a proven long term effective means of corrosion prevention. It is economical, effective, and minimally disruptive. We are enclosing the following three reference documents to assist in correcting the Flint water system problems.

1. American Water Works Association (AWWA) standard C602 for Cement Mortar Lining of Water Pipelines in Place 4 in. and Larger.
2. American Water Works Association (AWWA) manual M28 Rehabilitation of Water Mains (partial copy of manual)
3. History and Development of Water Main Rehabilitation by In-situ Cement Mortar Lining Technology

Metra Industries is proficient in the performance of In-Place Cement Mortar Lining of water mains as well as many other rehabilitation technologies. Please call if you have any questions. We would be very happy to help. Thank you.

Very Truly Yours,



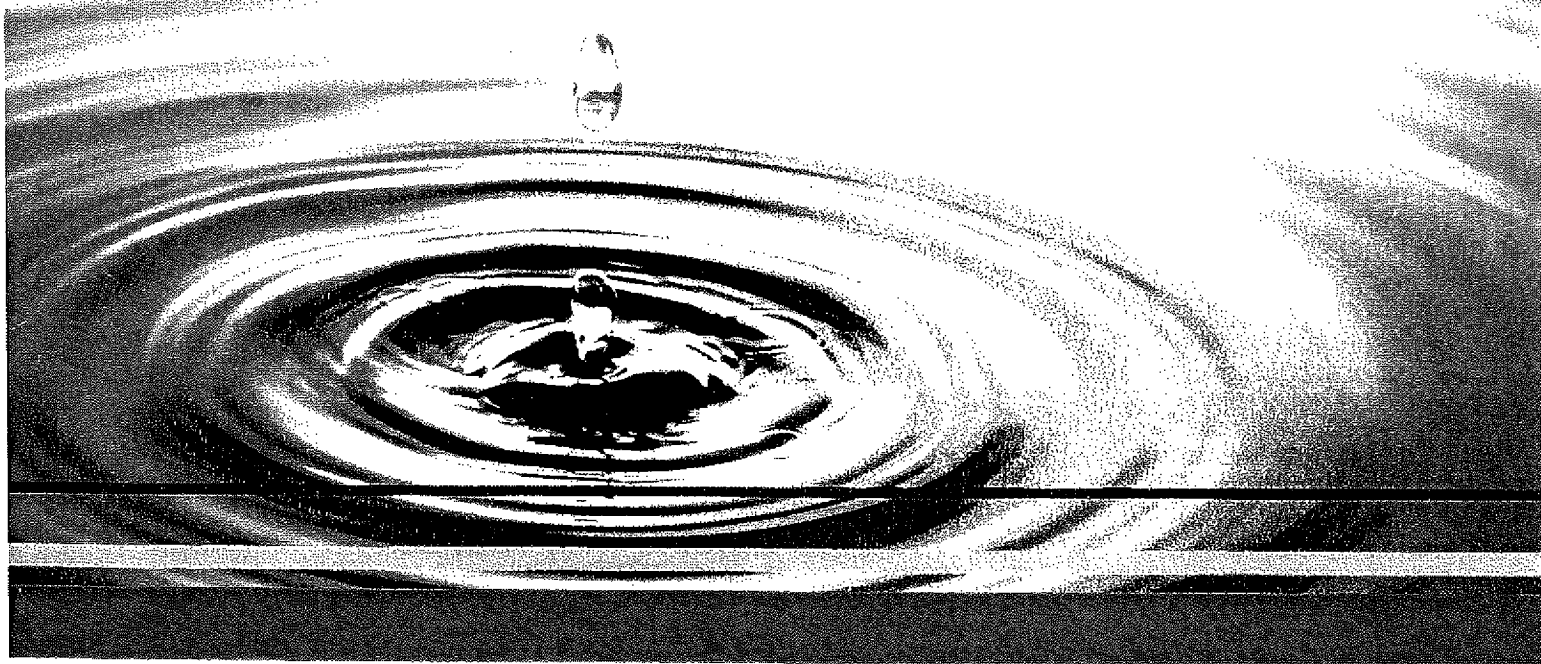
Joseph W. Dioslaki, P.E.  
Project Manager

CC: Governor Rick Snyder  
Bob Kaplan, EPA Region 5 Deputy Administrator  
Miguel Del Toral, EPA Region 5 Ground Water Drinking Water Branch Relations Manager  
Darren Lytle, EPA Office of Research and Development Scientist  
Michael Schock, EPA Office of Research and Development Scientist  
Jeff Kempic, EPA Office of Water Lead and Copper Rule Technical Lead  
Tim Henry, EPA Region 5 Water Division Deputy Director  
Tom Poy, EPA Region 5 Ground Water Drinking Water Branch Chief

# Rehabilitation of Water Mains

MANUAL OF WATER SUPPLY PRACTICES

28



American Water Works  
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## Chapter 1

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# Distribution System Performance Criteria

### WATER QUALITY

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The quality of treated drinking water may vary considerably, both from system to system and within a system, as a result of deterioration after it leaves the treatment plant and comes in contact with the interior of distribution system piping. Over time, changes in water chemistry can cause problems throughout the distribution system, ultimately affecting the quality of the water delivered to the end user.

The specific nature of distribution system water quality problems vary with water chemistry. However, the majority of these problems fall into three categories: sedimentation, encrustation, and fouling.

#### Sedimentation

Sedimentation is the process whereby solids settle out of water moving at low velocity in a main, reducing interior cross section and capacity. Source water pipelines or pipelines carrying improperly treated water can be subject to deposits of sand, silt, or organic materials. In extreme cases, sedimentation can also contribute to hydraulic problems, particularly at low points in the pipe.

Even slight overtreatment of water can result in posttreatment precipitation within the distribution system of deposits containing alum, lime, or calcium carbonate. A utility may promote controlled precipitation to lay down a thin layer (eggshell coating) of calcium carbonate for protection of the metallic pipeline interior. However, excessive or irregular deposits can easily occur, requiring cleaning of the distribution system.

#### Encrustation

Encrustation is a by-product of corrosion (tubercles) mixed with mineral deposits, such as iron, manganese, and carbonates. Before the 1960s, many iron pipes were

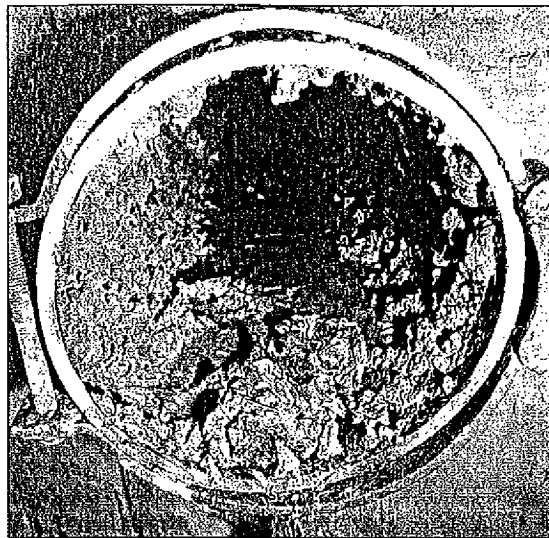


Figure 1-1 Pipe with problems caused by corrosion

installed without linings to protect the interior surfaces. These unlined pipes often experience internal corrosion.

As corrosion occurs, the interior of the pipe develops pits from which material is removed and tubercles where material is deposited (Figure 1-1). Additionally, corrosion can create "red water" complaints from end users. Corrosion may result from direct oxidation or electrolytic action, both fostered by aggressive water. Tuberculation can vary with water chemistry (from very soft to very hard water). Proper water chemistry does help to prevent additional buildup of encrustation. Most encrustation can be removed by cleaning. Perhaps the most significant water quality problem presented by encrustation are the potential difficulties maintaining a disinfectant residual. Removal of encrustation often increases a system's disinfectant residual; however, regrowth of encrustation is likely in unlined iron pipes.

### Fouling

Fouling represents a very significant problem, but one that is not always well-understood. A fouling problem can develop with any type of pipe material. The condition is usually caused by natural biological activity and results in buildup of an organic deposit on the interior of the pipe. Although this deposit is often soft and filamentous, it can severely affect water turbidity and cause taste-and-odor problems. Bacteriological activity from organisms, such as iron-fixing bacteria, can result in development of slimes and severe deposits in the pipe.

## HYDRAULIC PERFORMANCE

In addition to water quality problems discussed so far, any buildup inside distribution system piping can greatly reduce the hydraulic performance of the system. Hydraulic engineers have long determined flow in pipes by using the empirically derived Hazen-Williams formula:

$$V = 1.318Cr^{0.63}s^{-0.54}$$



Table 1-1 Hazen-Williams coefficient

Condition	C
New pipe	130-140
Fair to normal (interior clean)	100
Significant reduction in pipe capacity	70
Severe problem—interior cross section greatly reduced	30-50

where:

- $V$  = velocity, in ft/sec (m/sec)
- $r$  = hydraulic radius, in ft (m), which is the cross-sectional area of the pipe divided by the wetted perimeter
- $C$  = Hazen-Williams roughness coefficient
- $s$  = slope of the hydraulic grade line, in ft/ft (m/m)

$C$  (often called the "C factor") represents the coefficient of friction, a measure of the roughness of the interior of the pipe. Expressed in terms of  $C$ , the formula can be stated as:

$$C = 2,466QD^{-2.63}H^{-0.54}L^{0.54}$$

where:

- $C$  = Hazen-Williams roughness coefficient
- $Q$  = Quantity of flow in a pressure conduit, in mgd ( $m^3/d$ )
- $D$  = Nominal diameter of the pipe, in in. (mm)
- $H$  = Head loss, in ft (m) of water
- $L$  = Length of pipe, in ft (m)

The  $C$  factor, and hence the flow in a pipeline, depends on the type of pipe and its interior condition (see Table 1-1). For a given velocity, increased internal surface roughness (changing laminar to turbulent flow) can lead to a reduction in overall pipeline efficiency.

Field testing techniques allow distribution system operators to calculate Hazen-Williams  $C$  factors for their systems. These data help in making informed decisions about which process to employ to restore hydraulic efficiency. Collecting data for the Hazen-Williams  $C$  factor after employing any cleaning or pipe rehabilitation process is also a very useful way to gauge the impact of the system improvements.

## STRUCTURAL PERFORMANCE AND LEAKAGE

The structural performance of a water main may deteriorate over time because of a number of effects. Cast-iron, ductile-iron, and steel piping may be subject to internal and/or external corrosion, resulting in pitting and wall thinning, which can lead to leakage and eventual burst failures. Cement-based pipes such as asbestos-cement and concrete piping may also be subject to deterioration due to corrosion of the cement matrix and/or steel reinforcement. In addition, all types of pipe, including thermoplastics, may be subject to joint failure between pipe lengths and hence excessive leakage, which can in turn lead to washout of bedding and subsequent structural failure.

Such structural and leakage failures can have direct consequences such as high maintenance costs, water quality problems, service interruptions, and loss of valuable treated water. They may also have indirect consequences in terms of the economic and public relations costs of damage associated with bursts and the overall public image of the service provider.

## REHABILITATION SOLUTIONS

---

This manual describes a number of possible solutions to problems arising from corrosion and deposition. These range from simple periodic cleaning to replacement of the pipe using "trenchless" techniques. All of the solutions discussed in the manual make some use of the existing pipe, either as part of the rehabilitated system (renovation solutions) or as a convenient route for installation of new piping (replacement solutions). Solutions involving installation of a replacement pipe along a new route, such as open trench laying, directional drilling, and microtunneling, are outside the scope of this manual.

Selecting the optimal solution to a specific pipeline problem is a complex process involving both technical and economic considerations. Both the American Water Works Association Research Foundation and a number of AWWA technical committees are developing computer-based decision tools to assist utility engineers in this process. This work is expected to come to fruition while this edition of the manual remains in effect. In the meantime, the following guidelines may prove useful.

## SELECTION OF REHABILITATION SOLUTIONS

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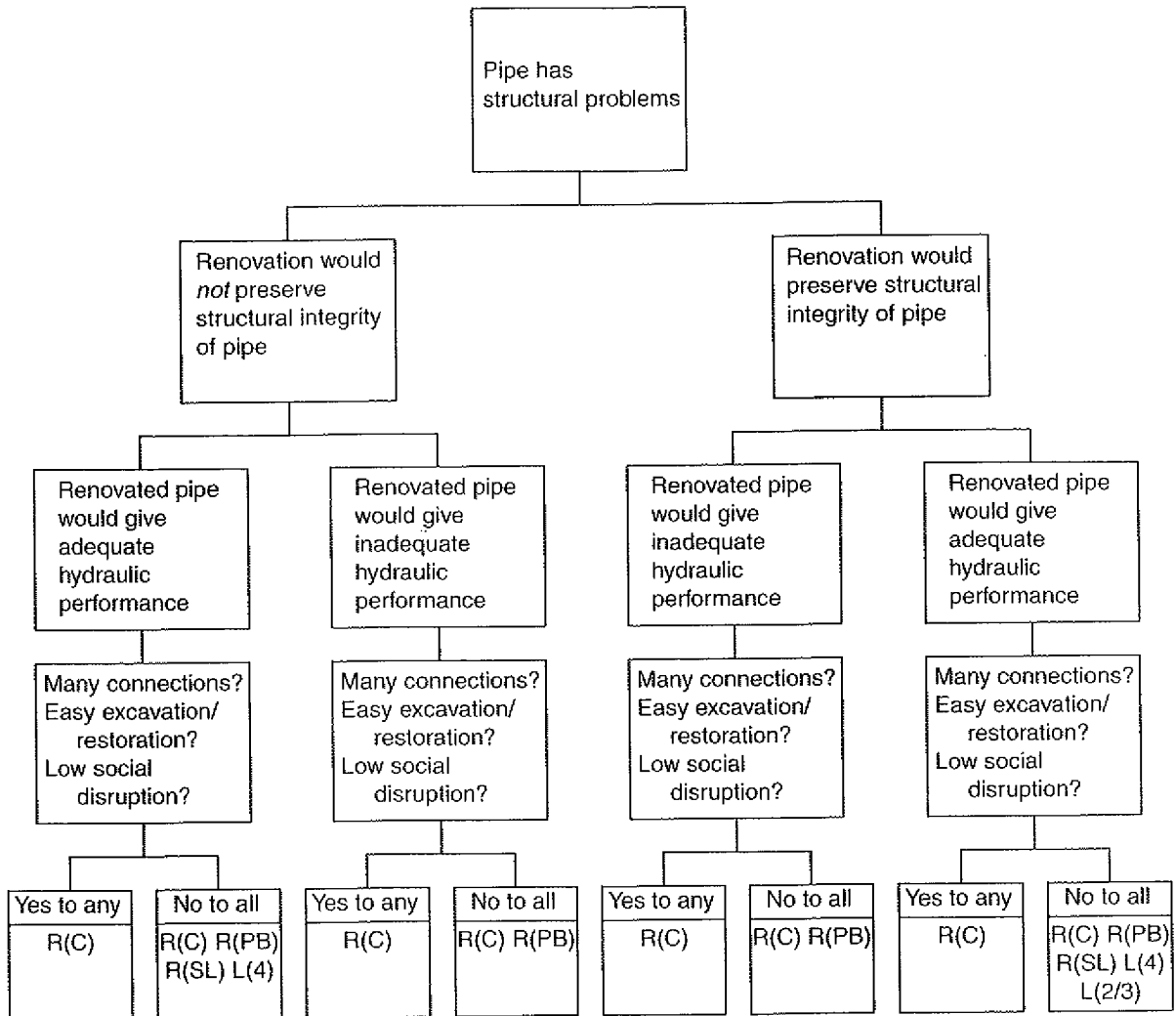
Key elements in the selection of a rehabilitation solution are

1. The exact nature of the problem(s) to be solved
2. The hydraulic and operating pressure requirements for the rehabilitated main
3. The materials, dimensions, and geometry of the water main
4. The types and locations of valves, fittings, and service connections
5. The length of time in which the main can be taken out of service
6. Site-specific factors

The aim of the selection process is to consider all these factors to arrive at the most cost-effective, technically viable solution. Ideally, the cost estimate should include not only direct contracting and related costs but also indirect costs associated with public disruption and longer-term maintenance and other "life cycle" costs.

One approach to technique selection is summarized in Figures 1-2, 1-3, and 1-4. Together, these charts provide a framework for selecting or rejecting groups of techniques, depending on the nature of the performance problems, hydraulic requirements, and some site-specific factors. In some cases, the charts indicate use of lining techniques classified as either Class I (nonstructural), Class II/III (semistructural), or Class IV (structural). A more detailed discussion of this classification system and of other key design issues associated with such lining techniques is presented in appendix A.

The figures do not list cleaning as a solution for water quality or flow and pressure problems. Cleaning with one of the various techniques discussed in the manual may well offer the lowest-cost immediate solution to many of these problems. It may offer a long-term solution if repeated as required or combined with chemical treatment of water to prevent or delay recurrence of the original problem. However, cleaning is more frequently used as a necessary preliminary step before carrying out one of the lining processes described in the manual.



R(C)—Replacement (conventional or boring/directional drilling)  
 R(PB)—Replacement (pipe bursting)  
 R(SL)—Replacement (slip-lining)  
 L(2/3)—Lining (semistructural—Class II/III)  
 L(4)—Lining (structural—Class IV)

Figure 1-2 Selection of rehabilitation techniques to resolve structural problems

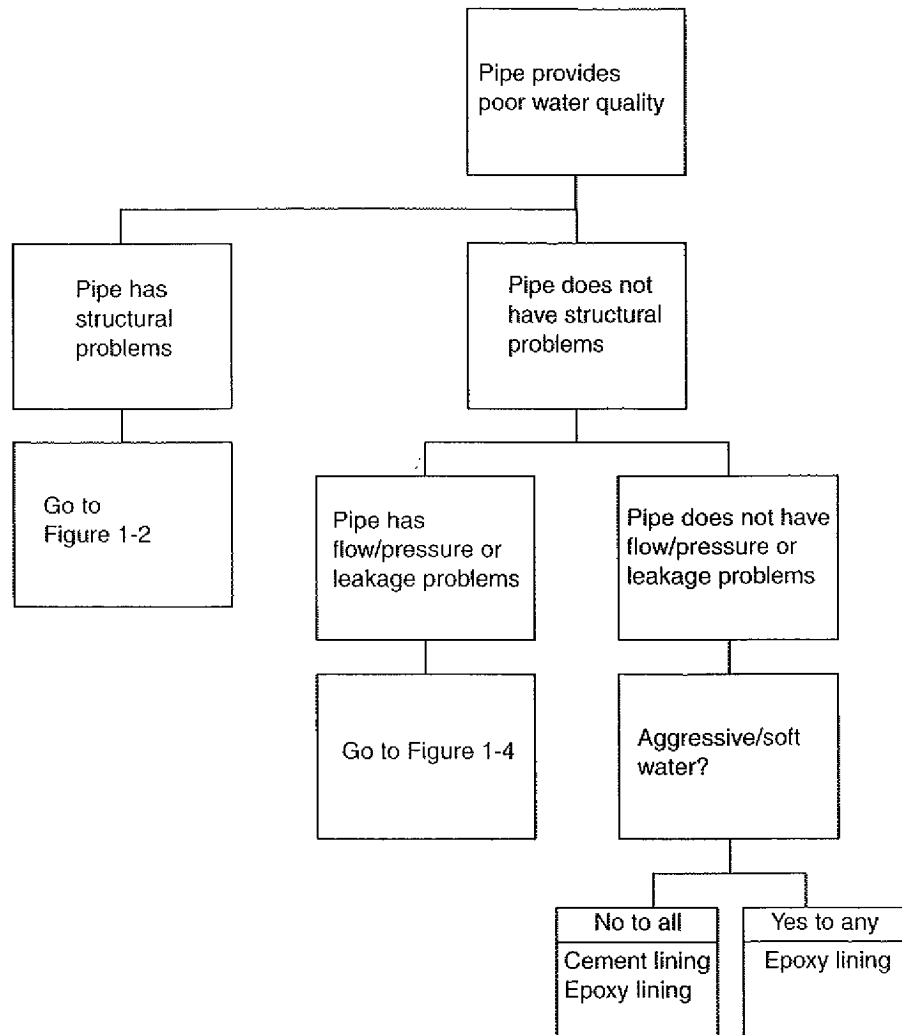
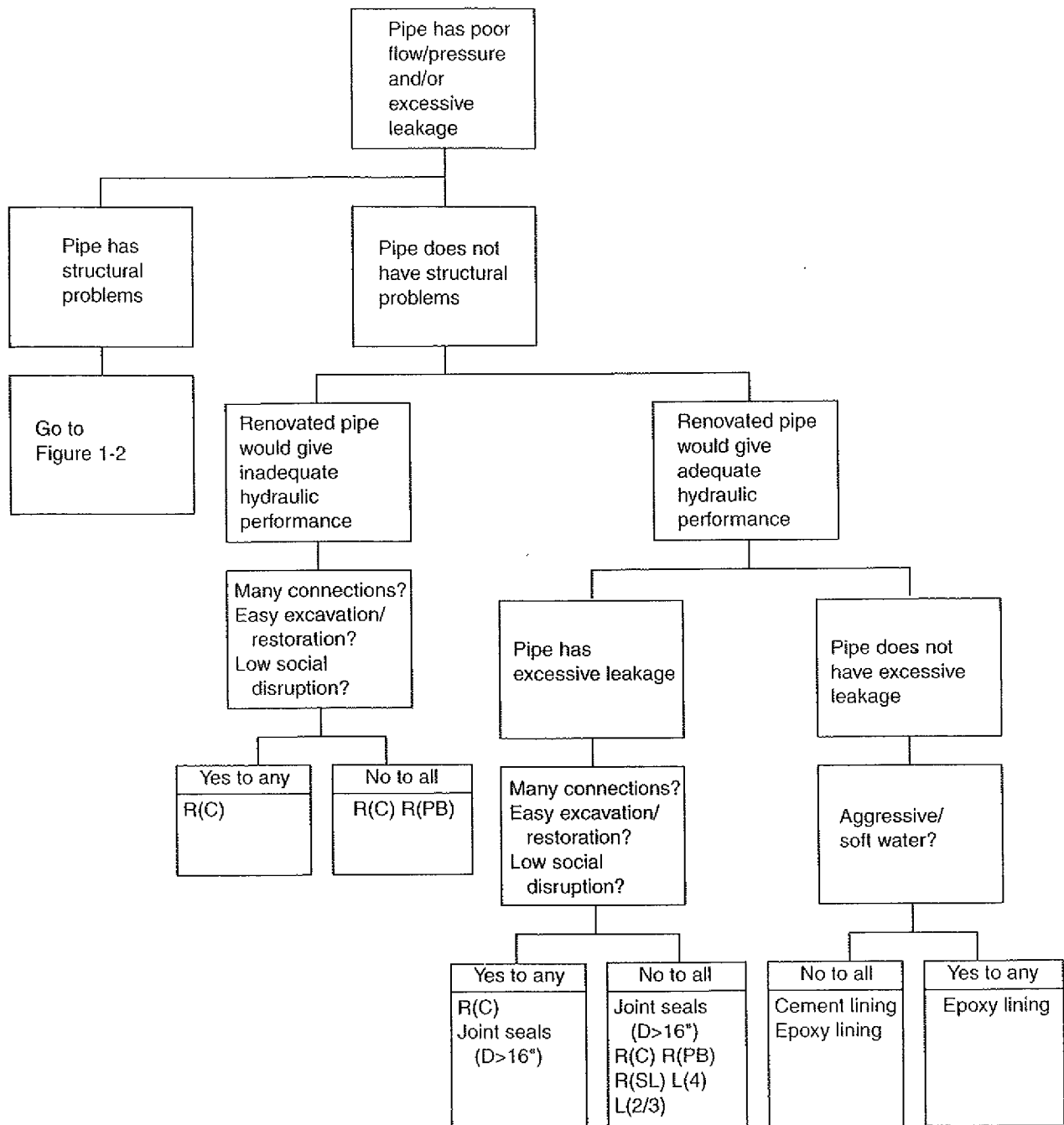


Figure 1-3 Selection of rehabilitation techniques to resolve water quality problems



R(C)—Replacement (conventional or boring/directional drilling)  
 R(PB)—Replacement (pipe bursting)  
 R(SL)—Replacement (slip-lining)  
 L(2/3)—Lining (semistructural—Class II/III)  
 L(4)—Lining (structural—Class IV)

Figure 1-4 Selection of rehabilitation techniques to resolve flow, pressure, and leakage problems



## Chapter 2

---

# Cleaning

Water mains can be cleaned in place in a water distribution system using one or more of the following methods:

- Flushing
- Cable-attached devices
- Fluid-propelled devices
- Power boring

Dispose of cleaning water and debris in accordance with applicable regulations. Refer to AWWA Standard C651, *Disinfecting Water Mains*, for guidance in disinfecting pipelines before returning them to service.

## FLUSHING

---

Water main flushing has a definite place in distribution system operation. It is particularly effective for light cleaning jobs. Mains should be flushed to clean newly installed and repaired mains prior to and after disinfection. Routine flushing is needed to remove impurities that cause complaints or are considered hazardous to public health. Refer to the AWWA handbook titled *Maintaining Distribution-System Water Quality* for specific flushing program guidelines.

Flushing should never be considered the only solution to water quality problems identified in the distribution system. Proper design and operation of distribution facilities and an effective backflow-prevention program should also be part of any effort to maintain water quality. While quality control is the primary purpose of flushing, careful observation of system hydraulics during flushing may indicate problems in mains, such as inadequate capacity, undiscovered restrictions, or closed or partially closed valves.

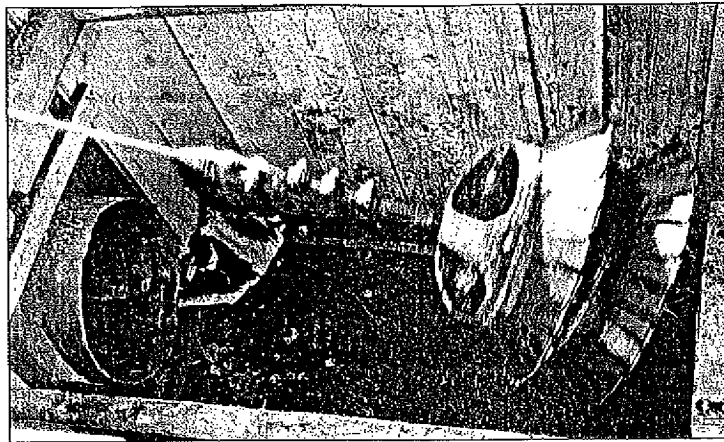


Figure 2-1 Drag cleaning, in which a winch pulls a mechanical cleaner through the pipe

## CABLE-ATTACHED DEVICES

Systems that use cable-attached devices for cleaning distribution mains include drag cleaning, hydraulic-jet cleaning, and electric scraper cleaning. In each case, the length of hose or cable determines the length of the pipe section that can be cleaned.

### Drag Cleaning

In drag cleaning, a winch pulls a mechanical cleaner, composed of a series of steel scraper blades and rubber squeegees, through the pipe (Figure 2-1). The mechanical cleaner is usually flexible, allowing it to negotiate bends of up to 45°. Both ends of the cleaner are fastened to steel cables, which are attached to winches at either end of the pipe section to be cleaned. The cleaner is winched first in one direction and then in the other, and this process continues until the pipe is satisfactorily cleaned.

This cleaning method offers important advantages:

- Cleaning can be accomplished when water pressure or volume is insufficient to propel a hydraulically driven device, or when excessive pressure would be required for hydraulic cleaning, especially with small-diameter mains.
- Very hard deposits and encrustation can be removed.
- Dry solids allow easy disposal.

### Hydraulic-Jet Cleaning

To clean pipe with a hydraulic jet, a special nozzle attached to a hose emits a jet of water at high velocity and pressure that removes debris and deposits from the interior of the pipe. Nozzle pressures of 1,000 to 10,000 psi (6,900 to 69,000 kPa) and above can be generated using this system. The jetted stream of water must bear hard enough against the scale or deposit to breach it and dislodge particles. Once the scale or depositional material is penetrated, the fluid forms a wedge between the deposit and the surface and strips off the deposit, exposing the clean metal surface. In many jetting operations, dislodged particles are entrained in the jetting stream and effectively dislodge more particles. The principal advantage of this method is removal of very tough deposits.

## Electric Scrapers

Electric scrapers are used to clean large-diameter lines. A variation of this cleaning method is the use of an electrically powered, operator-driven scraper. This power-driven scraper incorporates revolving brushes or rotating arms to clean the line.

The principal advantage of this method is the ability of the operator to evaluate the effectiveness of the cleaning process as it proceeds through the line.

## FLUID-PROPELLED CLEANING DEVICES

This section of the chapter describes fluid-propelled cleaning devices such as foam pigs and mechanical metal scrapers.

### Foam Pigs

Foam pigs are flexible, bullet-shaped cleaning tools manufactured of high-quality (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density) open-cell polyurethane foam, some coated with polyurethane synthetic rubber coatings (70 lb/ft<sup>3</sup> [1,121 kg/m<sup>3</sup>] density). (See Figures 2-2 and 2-3.) Pigs are propelled down water mains by the pressure and volume of water in the distribution system. Cleaning is accomplished by the frictional drag and flexible characteristics of the foam pig, which removes foreign objects, iron tuberculation, and other matter as it passes through the pipes, leaving the interior surfaces as smooth and free from irregularities as age, attrition of use, and type of piping material will allow. When water pressure is applied for propulsion, a certain amount of water bypass (approximately 10 percent) helps to keep loose debris suspended out in front of the foam pig (Figure 2-4).

Cleaning of deteriorating mains generally requires a series of swabs and foam pigs applied in progressively larger diameters (referred to as *progressive pigging*) until the pipe is restored to its original diameter.



Figure 2-2 Foam pig: A bullet-shaped device made of polyurethane foam



Figure 2-3 A foam pig with hardened coatings



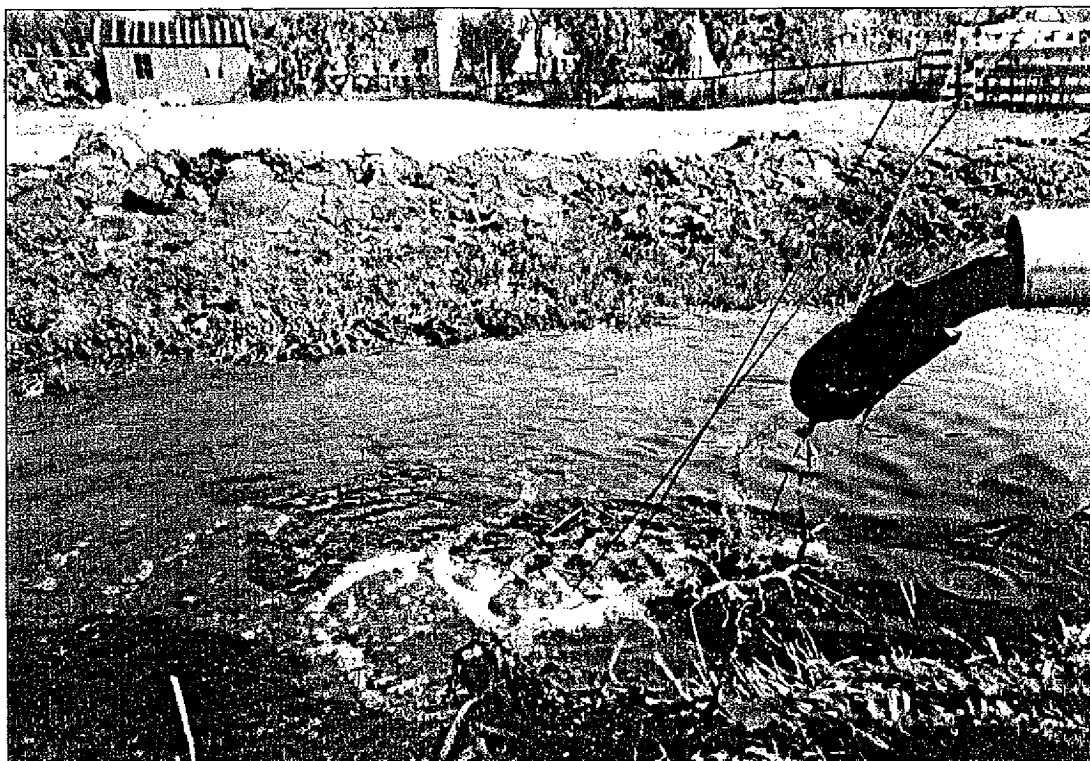


Figure 2-4 Loose debris flushed ahead of the pig

**Operating procedures.** The following steps briefly describe the most common operating procedures for cleaning water distribution mains with foam pigs. The described procedure is based on a best-case scenario; actual procedures may vary for certain applications.

1. Review drawings of lines to be cleaned to identify a) possible entry and exit points, and b) all valves to be used to isolate the section of system to be cleaned.
2. Exercise all valves in the section to be cleaned before the pigging operation to ensure isolation of the section to be cleaned.
3. Flow tests should be performed before and after the pigging operation to evaluate the efficacy of the cleaning and determine the resulting condition of the water main.
4. Provide adequate means for disposing any debris exiting the pipe. Storm drains may be suitable for disposing of small amounts of light debris. However, the best arrangement for handling large amounts of heavy debris would be to direct the flow to a temporary settling pond, the bed of a dump truck, etc., to facilitate removal of solids once the water has drained away.
5. Notify all affected customers (commercial and residential) as well as fire department officials of the scheduled interruption of service.

6. Confirm that all valves in the section to be cleaned are fully opened and working properly and that the section is properly isolated. Foam pigs follow the direction of flow, which must be controlled by the valve locations.
7. Introducing the foam pigs into the water main may be accomplished either by hand or through the use of mechanical equipment commonly called a *pig launcher*. Several types of fire hydrants, once they are disassembled, can be used as entry and exit points for pigging of some water mains 6 in. (150 mm) and smaller (Figure 2-5).
8. To produce the best cleaning results, foam pigs should travel through a water main at a rate of 3 to 9 ft/sec (9 to 24 m/sec).
9. Sequence of foam pig runs:
  - a. Introduce a line-sized, soft-foam swab (1.5 to 2.0 lb/ft<sup>3</sup> [24 to 32 kg/m<sup>3</sup>] density, uncoated), called a *prover pig*, to determine the actual effective inside diameter of the pipe to be cleaned. The swab wears down while passing deposits in and along the pipe wall.
  - b. Introduce a line-sized bare foam pig (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density, uncoated) to remove soft deposits and help gauge the true opening in the line.
  - c. Introduce a line-sized, coated foam pig (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density, coated with urethane elastomer). This type of foam pig should be run repeatedly until one emerges in reusable condition. A water line with excessive buildup should be pigged using the progressive pigging method, beginning with undersized, coated foam pigs and gradually increasing the size in successive passes until a line-sized foam pig emerges in reusable condition.

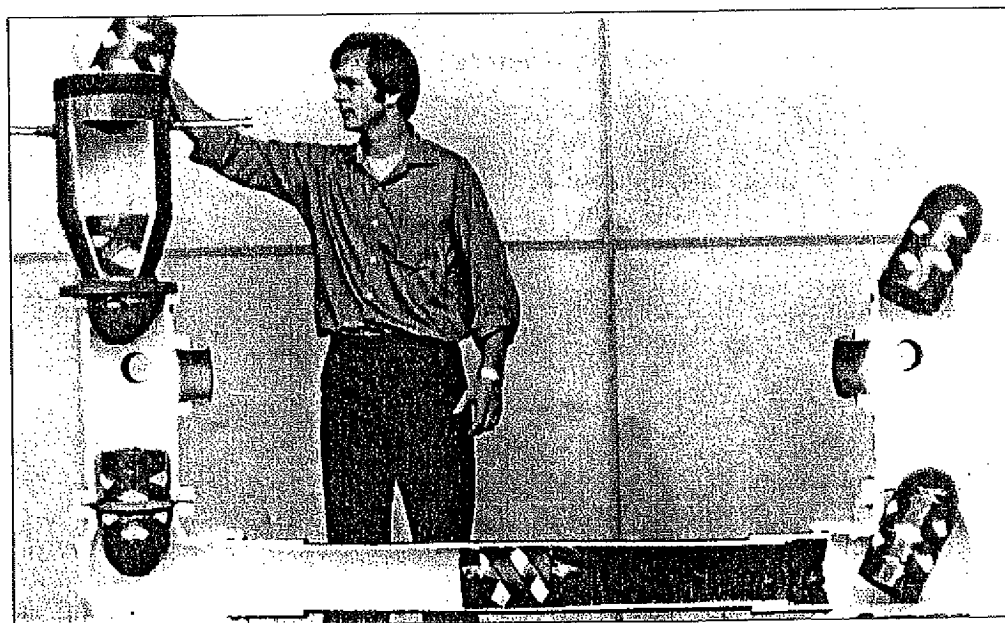


Figure 2-5 Pigs launched through a disassembled fire hydrant for a 6-in. (150-mm) or smaller line

- d. Line-sized, wire brush foam pigs may be introduced following these applications for final removal of extremely hard deposits (such as tuberculation).
  - e. Introduce a line-sized swab (1.5 to 2.0 lb/ft<sup>3</sup> [24 to 32 kg/m<sup>3</sup>] density foam, uncoated) to sweep out any loose debris and determine the effectiveness of the cleaning process.
10. Flush and disinfect as required.
  11. Place the water main back into service.

Foam pigs are flexible enough to negotiate short-radius bends and pass through full-port valves and some types of plug valves. Their capability to be compressed up to 35 percent of their cross-sectional area allows them to pass through multidimensional lines and full-port valves. A piggable valve is one through which a pig will pass every time. Foam pigs do not pass through butterfly valves. Foam pigs can clean long sections of piping from one entry point, thus reducing the number of excavation sites required. Pigging is a fast, simple, and cost-effective method of returning most deteriorated piping systems to as-designed capacity and efficiency.

## Metal Scrapers

A metal cleaning scraper consists of a steel frame shaped like a piston. Specially tempered steel blades are attached around the scraper at various angles to create a scraping and brushing action (Figures 2-6 through 2-8). The cleaner is propelled through the water main by means of water pressure.

Cleaning is often accomplished with a single pass in a continuous operation; sometimes, however, interior pipe conditions may require additional passes. The length of pipeline that can be cleaned hydraulically in one operation is limited only by the availability of volume and pressure water and a proper means of disposing of water and deposits. An opening must be provided at each end of the section to be cleaned for entry and exit of the cleaning tool. The volume of water required to hydraulically clean

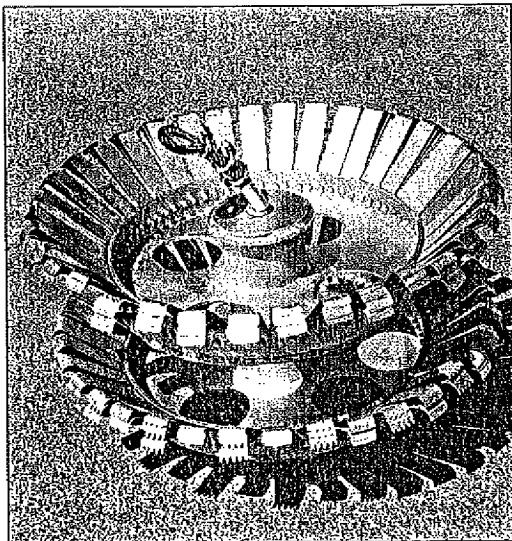


Figure 2-6 Scraper unit with specially tempered steel blades

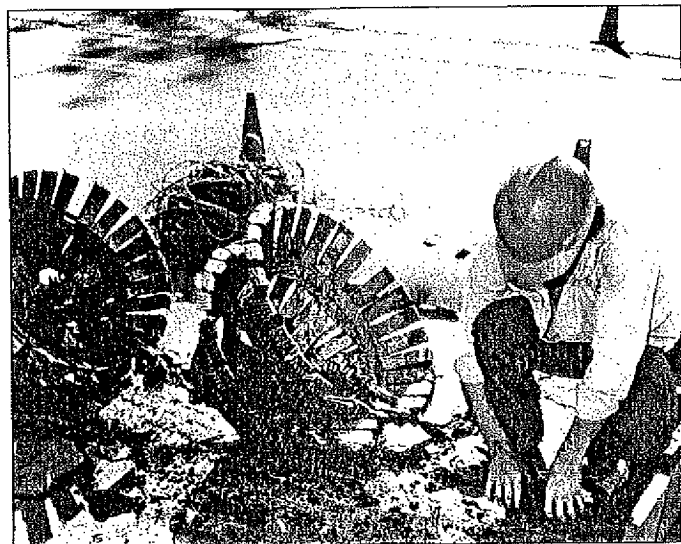


Figure 2-7 Several scraper units assembled together in the field

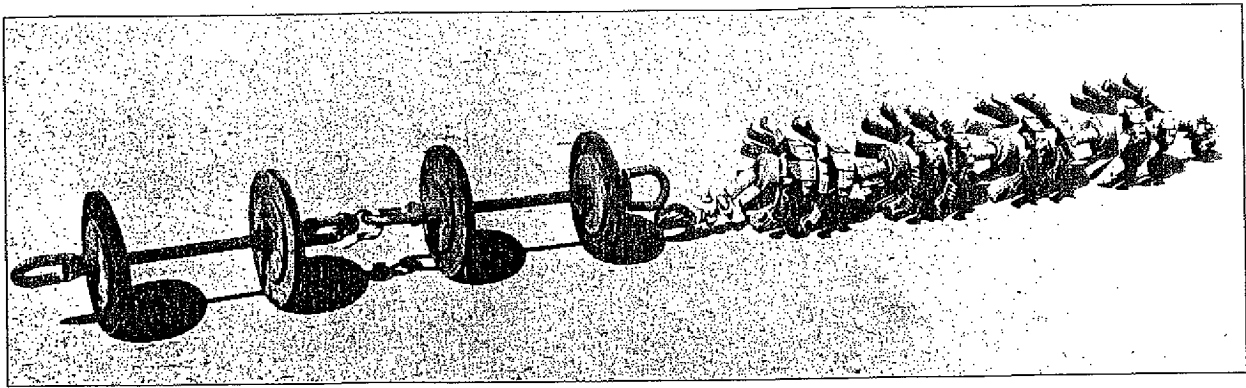


Figure 2-8 A series of disks to act as a hydraulic piston, pulling scrapers through the line

a pipeline will depend, to a great extent, on how dirty the water is. Sufficient water must be added behind the cleaner to fill the pipe as the cleaner moves ahead.

The water that passes the cleaner scours the wall of the pipe and washes ahead the material that is scraped off the pipe. While the velocity of water ahead of the cleaner is independent of cleaner speed, it must be sufficient to remove the deposits. Experience indicates that a flow velocity ahead of the cleaner of between 2 and 10 ft/sec (0.6 and 3.0 m/sec) is required to remove the deposits. In a small pipe, because a relatively large amount of material must be moved for the volume of the pipe, a relatively high velocity is required.

The cleaning water and deposits must be discharged from the pipeline in a way that avoids creating a nuisance or environmental problem. A sandbag dam can be constructed to create a pond for particle settlement (Figure 2-9). This allows the clean water to be decanted to a storm drain while any solid material is collected and properly disposed of. Another method is to pipe the water to a dump truck, catching the solids in the truck and allowing the water to run off into a storm drain.

**Operating procedures.** The following steps describe the operating procedures commonly used when cleaning water pipes with mechanical scrapers.

1. Review drawings of lines to be cleaned. Identify logical entry and exit points for the cleaning tool. Note all valves, service connections, and other components that must be opened or closed to isolate the line to be cleaned. Conduct C-factor tests (if not previously completed) to determine the condition of the line.
2. Excavate and install a spool piece at each entry and exit point (Figure 2-10). Obtain a sample of deposits in the line and determine their average thickness.
3. Determine source of cleaning water (e.g., reservoir, feeder mains, parallel lines, etc.). Cleaning for lines 12 in. (300 mm) in diameter and smaller may require auxiliary pumps to provide adequate flow and pressure; flow and pressure within the system generally are adequate to clean mains over 12 in. (300 mm) in diameter.
4. Provide suitable means for disposing water and removed solids.
5. Notify all affected commercial and residential customers, as well as fire department officials, of the scheduled interruption of service.

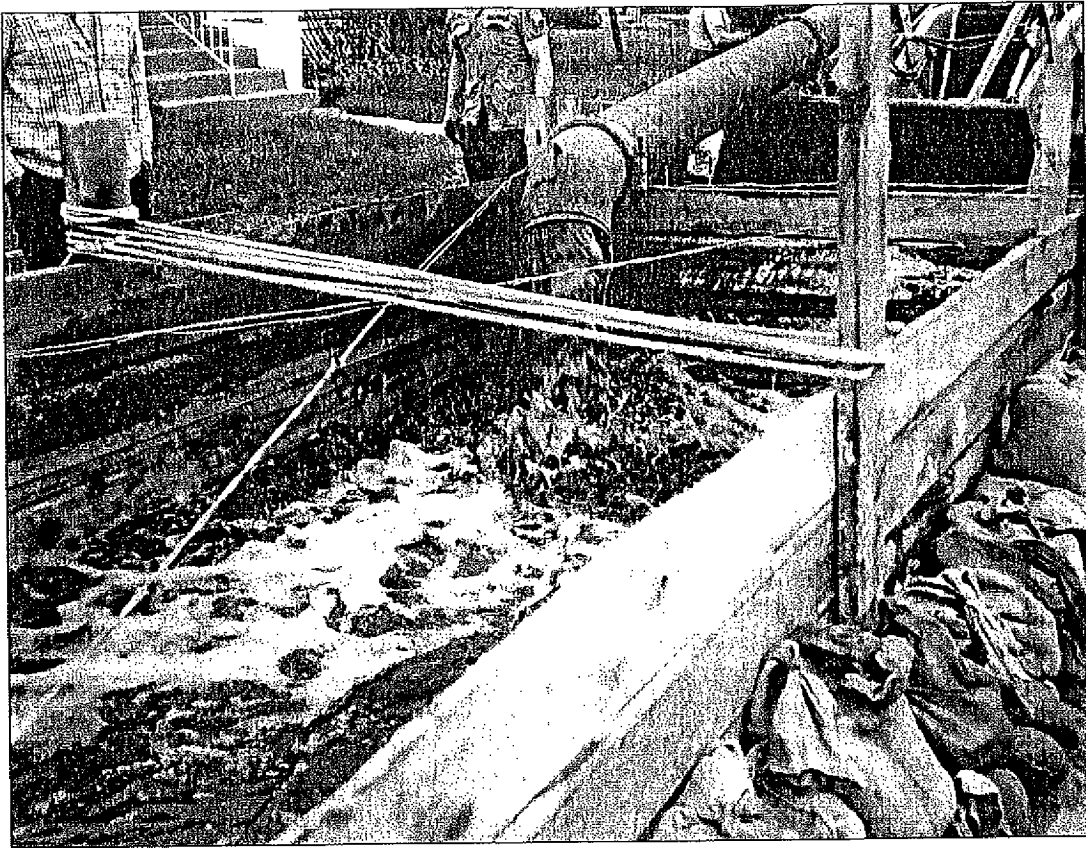


Figure 2-9 A sandbag dam to create a pond for particle settling

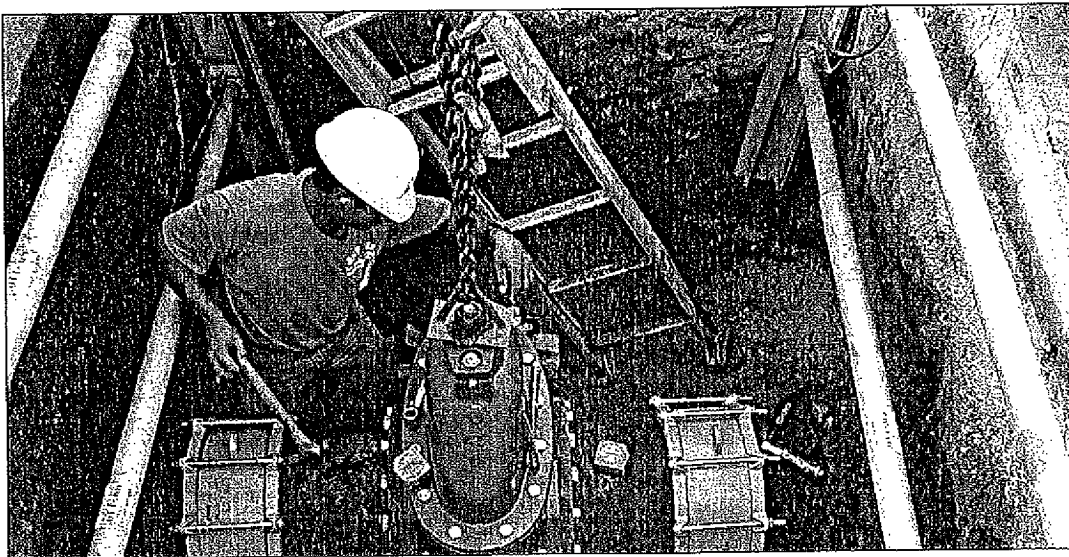


Figure 2-10 A spool piece installed at the entry and exit points for mechanical scrapers

6. Completely isolate the section to be cleaned. Close valves slowly to prevent water hammer.
7. Drain the line to be cleaned.
8. Open entry and exit points and remove spool piece sections. At the entry point, install a spool piece with the cleaning device inside. At the exit point, install discharge piping to bring discharged water up to ground level. Connect a water manifold with a throttle valve to control the rate of travel of the cleaning device.
9. Initiate the required flow into the main, and control speed with a bypass, blowoff valve.
10. Complete the cleaning operation.
11. Reclaim the cleaning device at the exit spool.
12. Repeat additional cleaning passes, as required.
13. Remove the insertion and retrieval sections, and replace permanent spool sections. Backfill and complete other necessary maintenance.
14. Flush and disinfect the line, as required. Conduct tests to determine its C factor following cleaning.
15. Return the line to service.

**Advantages.** Principal advantages of this method include

- Ability to clean long stretches of heavily deposited pipe at 2 to 10 ft/sec (0.6 to 3.0 m/sec) in a single, continuous operation
- Flexibility to negotiate standard bends (with maximum radius equal to 1½ pipe diameters) and elbows, inclined and vertical pipe sections, and to pass line-size gate valves, ball valves, tees, and corporation taps
- Ability to clean water mains with minimal excavation points
- Capability to restore water mains to C factors comparable to newly installed, unlined pipe

## CLEANING BY POWER BORING

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Power boring is a cleaning method using any hydraulically powered device capable of removing tuberculation and encrustation from cast-iron, ductile-iron, and steel pipe from 3 in. (76 mm) in diameter and above. This process is normally carried out in lengths of 400 ft (121 m) or greater. This cleaning method is described in the following paragraphs.

### Rack-Feed Boring Equipment

A rack-feed boring machine (Figure 2-11) is a compact, diesel-powered unit that uses hydraulic pressure to deliver up to 31 horsepower (23.1 kW) to a boring head. The boring head is designed to accommodate spring steel boring rods 15 ft (4.6 m) long fitted with spring-loaded quick-connects for connecting rods into suitable lengths for cleaning various lengths of pipe (Figure 2-12). The end of a boring rod assembly is fitted with a spring steel cutter blade or other cleaning tool, which rotates at 750 rpm through the pipe. (See Figure 2-13.) This cleaning process is conducted against a controlled, upstream water flow to flush loosened debris from the pipe.



## Chapter 3

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# Lining Techniques

A water utility may decide to line its distribution system pipes in response to a number of problems, such as those described in chapter 1. Lining a pipeline can eliminate the need for frequent flushing. Where leakage is a problem, linings have been installed to reduce or eliminate leaks through corroded areas of pipe or bad joints. A smooth lining in a corroding pipe helps to maximize hydraulic carrying capacity and minimize pumping costs. Additionally, some lining systems can correct structural failures, bridge breaks, and missing sections in corroded pipe, thus restoring service through a continuous pipeline.

In-place lining of water mains can be accomplished by one or more of the following general methods:

- Cement-mortar lining
- Epoxy lining
- Slip-lining
- Modified slip-lining
- Cured-in-place lining
- Structural lining
- Internal joint seals
- Pipe bursting

Internal joint seals and pipe bursting methods are discussed in chapters 4 and 5.

Refer to AWWA C651, Disinfecting Water Mains, for guidance on procedures for disinfecting pipelines before returning them to service.

## CEMENT-MORTAR LINING

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When alkaline-containing water comes in contact with iron, a chemical inhibitor against oxidation forms. Because the cement and sand in cement-mortar lining is porous, water can penetrate through the lining to the pipe wall, becoming alkaline in

the process. Consequently, pipe that is lined with cement mortar is protected from oxidation because of the composition of the portland cement.

Cement-mortar linings were first installed in existing pipelines using the centrifugal process in the mid-1930s. However, this method was limited to pipelines large enough for a person to enter. In the 1960s, remote lining processes were introduced. Today, cement mortar is applied to new ductile-iron pipes and most new steel pipes before installation, making this method a standard in the water industry.

Cement mortar is applied to the pipe wall by the rotating head of an electric or air-powered machine. The machine is placed in the pipe at 300 to 1,500 ft (92 to 458 m) intervals, depending on pipe diameter, valve locations, bends, profile, and alignment (Figures 3-1, 3-2, and 3-3). Mortar is pumped to the lining machine through high-pressure hoses or is mechanically delivered. The lining machine is equipped with rotating trowels or a conical drag trowel positioned just behind the dispensing head. As the machine moves through the pipe, it leaves a smooth, troweled (nonstructural) finish.

A reinforced cement-mortar lining may also provide structural improvement. Initially a 0.5-in. (13-mm) thick cement-mortar lining is placed on the pipe wall in the conventional manner without troweling. Using overlapping joints, a wire mesh is placed against the lining, which is then covered by another 0.5-in. (13-mm) troweled cement-mortar lining. The remaining steps in the process are the same as those for an unreinforced lining. This process is generally used to rehabilitate steel lines in poor condition due to extensive corrosion and in lines large enough for a person to enter. The reinforcing wire holds the cement mortar together, even if large holes develop in the pipeline. While this method will not necessarily prevent a blowout, it will extend the useful life of a pipeline.

## Operating Procedures

The following steps describe the common operating procedures used when lining a main with nonstructural cement mortar.

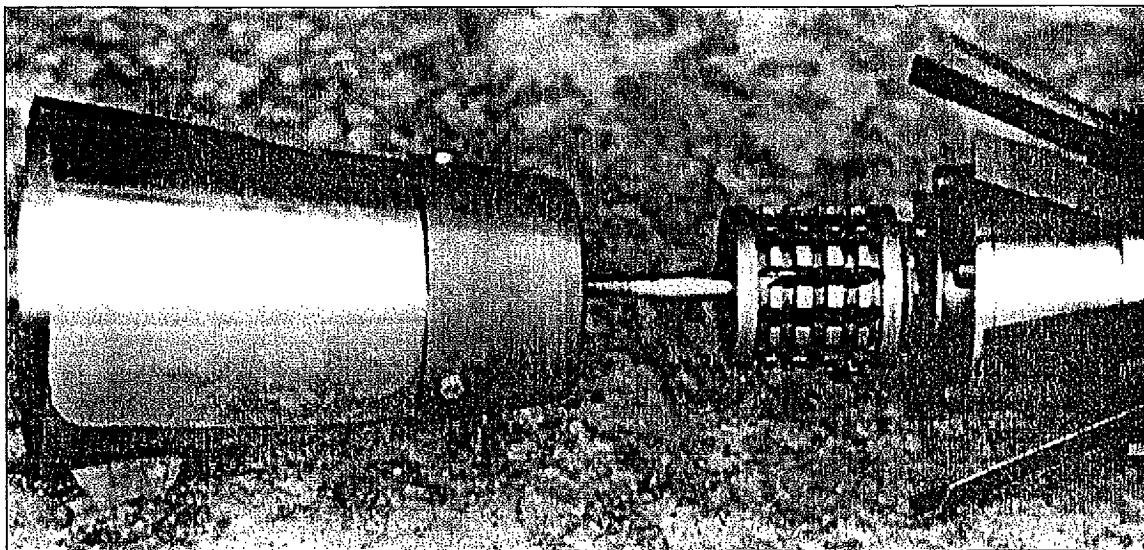


Figure 3-1 A cement-mortar lining machine for use in small-diameter pipe



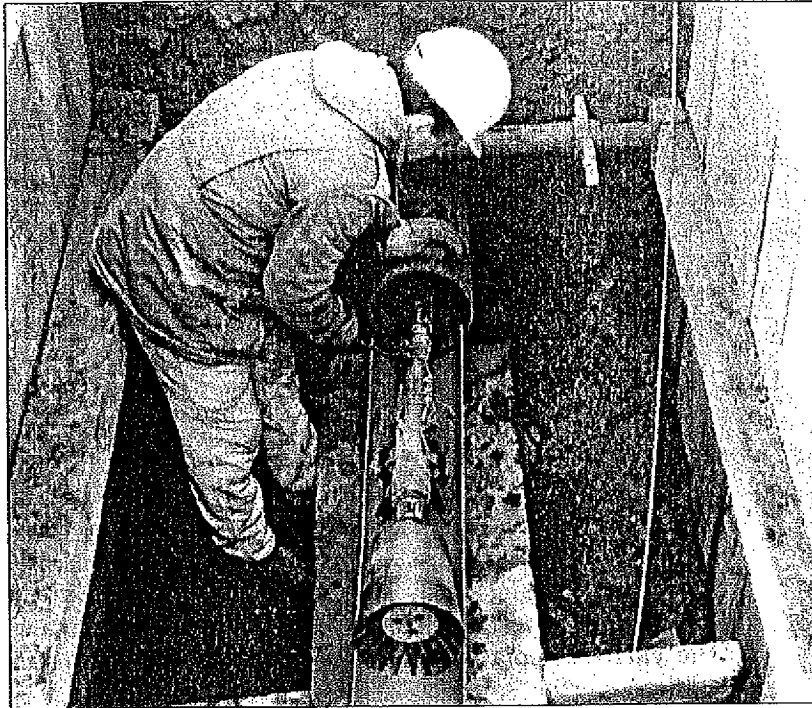


Figure 3-2 Introduction of a small lining machine

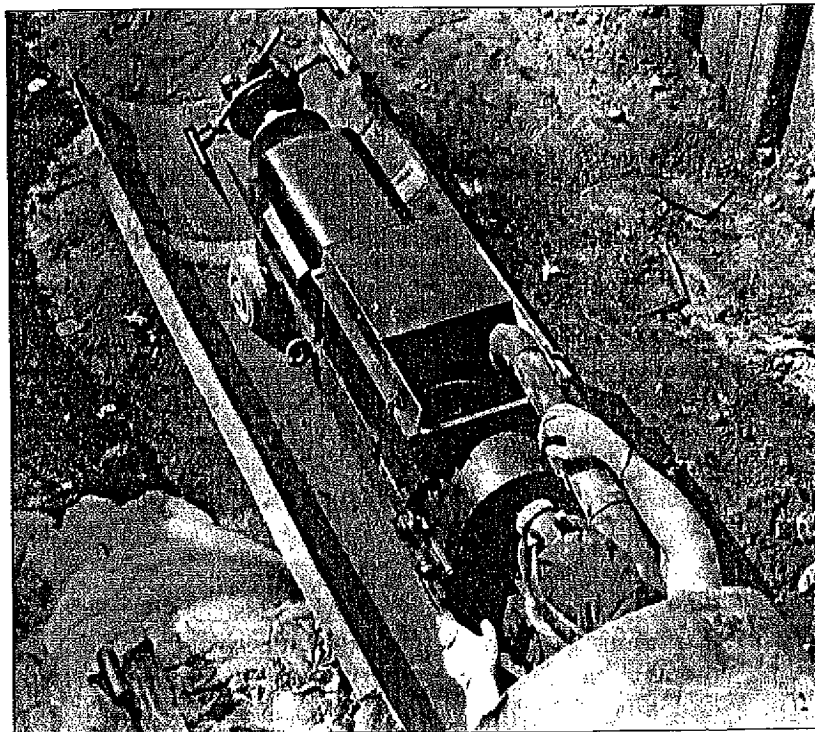


Figure 3-3 A cement-mortar lining machine for use in large-diameter pipe

1. Topography, bends, in-line valves, reduced-diameter in-line valves, and traffic conditions all influence the locations of excavations for access points to allow introduction of the lining equipment. These conditions also affect the method used to clean the pipe. All 22.5°, 45°, and 90° bends must be removed for 12-in. (300-mm) diameter pipe and smaller; 45° and 90° bends must be removed in 16-in. (400-mm) diameter pipe. Pipe 20-in. (500-mm) diameter and larger may require excavations near the bends or removal.

Full-diameter line valves must be removed and replaced, or the bonnets removed to clean the cement mortar from the interior of the valve if the pipe is too small for a person to enter. In large pipe, personnel can clean the valve interior from inside the pipe. Depending on their size, reduced-diameter or obstructed line valves may require removal or excavations on each side of the valves to allow lining.

2. The pipeline is generally dewatered by gravity and/or blowoffs, which remove most of the water. The contractor can then remove any remaining water lying in low spots with rubber squeegees pulled by winch through the pipe. At this time, inspection usually determines whether any branch valves are leaking. If a valve fails to stop water from entering the pipe to be lined, it is reexercised. If the leakage continues, a seal is installed or the valve is replaced. The pipe must be free of water when lining with cement mortar.
3. Cast-iron pipe is cut with a squeeze-type cutter, guillotine saw, handheld mechanical saw, or traveling saw, and a 4- to 5-ft (1.0- to 1.5-m) section of pipe is removed. Steel pipe is cut by torch, and a half cap is removed. Mechanical couplings are used for reconnecting cast-iron pipe, and butt straps are used to reconnect steel pipe.
4. A mixing van or concrete batch plant is located near the access hole where a cement-mortar mixture, consisting of one part silica-type sand and one part type II portland cement, is prepared. The mixed mortar is then delivered to the lining machine by one of several methods, depending on the pipe diameter.
5. In 4- to 24-in. (100- to 600-mm) diameter pipe (sometimes larger), the mortar is pumped through high-pressure hoses to the lining machine. Specially designed winches pull the lining machine through the pipe at a constant speed, ensuring a uniform lining thickness.
6. Mechanical feeding equipment shuttling between the access excavation (where the mortar is mixed) and the lining machine delivers mortar to the lining-machine hopper. The lining-machine operator then regulates the mortar application. Mechanically driven rotating trowels are used with this manually operated equipment.
7. Consumers' service lines and laterals less than 2 in. (50 mm) in diameter must be cleared after the lining application. This is done about 1 hr after the lining is completed, using compressed air to blow open the service line at the connection to the main. Laterals over 2 in. (50 mm) in diameter are not plugged by centrifugal lining and do not require excavation or blow back.
8. Water can be introduced into the line without pressure to allow curing 24 hr after completing the lining. The main can then be chlorinated, tested, and

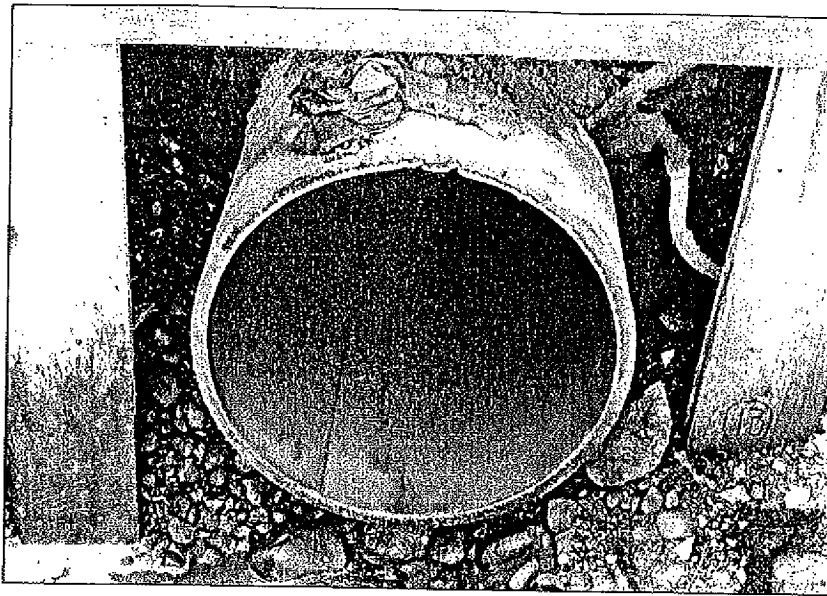


Figure 3-4 A pipe ready to be returned to service four to seven days after cement-mortar lining

returned to service. (Discharge water should be disposed of in accordance with local ordinances. Chlorine may need to be neutralized and the pH adjusted before discharge. Mains with low flow may experience high pH problems for a short time after being returned to service.) Most distribution mains are returned to service between four and seven days after lining (Figure 3-4), depending on valve locations and disinfection requirements.

9. AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place—4 in. (100 mm) and Larger, covers cement-mortar lining of pipelines from 4 in. (100 mm) to 144 in. (3,658 mm) in diameter.

American Water Works Association

**ANSI/AWWA C602-00**

(Revision of ANSI/AWWA C602-95)



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**AWWA STANDARD**  
FOR  
**CEMENT-MORTAR LINING**  
**OF WATER PIPELINES IN PLACE—**  
**4 IN. (100 mm) AND LARGER**



**Return to  
List of Standards**

*Effective date: January 1, 2001.*

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**AMERICAN WATER WORKS ASSOCIATION**

6666 West Quincy Avenue, Denver, Colorado 80235

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# Foreword

*This foreword is for information only and is not part of AWWA C602.*

## **I. Introduction.**

**I.A. Background.** Cement-mortar lining provides the interior of a ferrous-metal pipe with a smooth finish that protects it from corrosion and tuberculation. The lining can significantly retard the recurrence of these problems in previously used pipe if the pipe has been properly cleaned and repaired before application of the lining. Furthermore, the lining can increase the pipeline's carrying capacity because of the reduction in friction resulting from streamlining surface irregularities.

The use of cement mortar as a protective lining for water mains was reported by the French Academy of Science in 1836. Fourteen years later, cement-lined, coated, sheet-metal pipe was introduced in the United States. Some of the early pipelines were in use for the better part of a century, but it was not until the 1930s that a practical method was developed for lining pipe in place.

The first field trial of in-place cement-mortar lining (of pipe that had been in service) was conducted in Jersey City, N.J., in 1933. The pipe was a short section 72 in. (1,830 mm) in diameter. The favorable outcome of the trial led to the cleaning and lining of more than 27,000 ft (8,230 m) of aged, 48-in. (1,220-mm) riveted-steel pipe supplying Newark, N.J. The lining stopped all leakage and, as a result of streamlining the surface over large rivets, also increased the Hazen-Williams flow coefficient by 14 points (estimated by the engineer).

For many years, the smallest-diameter pipe that could be reconditioned by the centrifugal process was 24 in. (600 mm), because a man was required to ride the lining machine through the pipe. In 1950, a remote-control centrifugal-lining machine was introduced that made in-place lining of progressively smaller-diameter pipe possible. Presently, pipelines ranging from 4 in. (100 mm) to 28 ft (9.2 m) in diameter can be cleaned and cement-mortar lined in place.

**I.B. History.** The first American Water Works Association (AWWA) standard for cement-mortar lining of pipe in place was published in 1939 as part of AWWA C205-41 (formerly 7A-7-41), Standard for Cement-Mortar Protective Lining and Coating for Steel Water Pipe. That standard was primarily concerned with in-plant lining and coating, a completely different process from in-place lining. Therefore, in 1951, the in-place lining portion was withdrawn and expanded into a separate

standard under the direction of the late H.A. Price, who authored most of the new document. That standard, AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place—Sizes 16 In. and Larger, was approved as tentative in 1954 and made standard in 1955.

In 1962, Price suggested to the AWWA Steel Water Pipe Manufacturers Technical Advisory Committee (SWPMTAC) that AWWA C602-55 should be revised in view of the extended competence of the centrifugal-lining process, which at that time included pipe as small as 4 in. (100 mm) in diameter. The assignment was given to SWPMTAC Subcommittee 8 and resulted in the revision of the standard adopted and published in 1967.

In 1972, the standard was again considered for revision to reflect the state of the art of in-place cement-mortar lining. The more frequent use of in-place cement-mortar lining in new, large-diameter steel pipelines prompted the committee to note some of the standard procedures used in this application. This edition was approved on Jan. 25, 1976. The standard was revised in 1983, 1988, and 1995. This edition was approved on June 11, 2000.

*I.C. Acceptance.* In May 1985, the US Environmental Protection Agency (USEPA) entered into a cooperative agreement with a consortium led by NSF International (NSF) to develop voluntary third-party consensus standards and a certification program for all direct and indirect drinking water additives. Other members of the original consortium included the American Water Works Association Research Foundation (AWWARF) and the Conference of State Health and Environmental Managers (COSHEM). The American Water Works Association (AWWA) and the Association of State Drinking Water Administrators (ASDWA) joined later.

In the United States, authority to regulate products for use in, or in contact with, drinking water rests with individual states.\* Local agencies may choose to impose requirements more stringent than those required by the state. To evaluate the health effects of products and drinking water additives from such products, state and local agencies may use various references, including:

1. An advisory program formerly administered by USEPA, Office of Drinking Water, discontinued on Apr. 7, 1990.
2. Specific policies of the state or local agency.

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\*Persons in Canada, Mexico, and non-North American countries should contact the appropriate authority having jurisdiction.

3. Two standards developed under the direction of NSF: ANSI<sup>\*</sup>/NSF<sup>†</sup> 60, Drinking Water Treatment Chemicals—Health Effects, and ANSI/NSF 61, Drinking Water System Components—Health Effects.

4. Other references, including AWWA standards, *Food Chemicals Codex*, *Water Chemicals Codex*,<sup>‡</sup> and other standards considered appropriate by the state or local agency.

Various certification organizations may be involved in certifying products in accordance with ANSI/NSF 61. Individual states or local agencies have authority to accept or accredit certification organizations within their jurisdiction. Accreditation of certification organizations may vary from jurisdiction to jurisdiction.

Annex A, "Toxicology Review and Evaluation Procedures," to ANSI/NSF 61 does not stipulate a maximum allowable level (MAL) of a contaminant for substances not regulated by a USEPA final maximum contaminant level (MCL). The MALs of an unspecified list of "unregulated contaminants" are based on toxicity testing guidelines (noncarcinogens) and risk characterization methodology (carcinogens). Use of Annex A procedures may not always be identical, depending on the certifier.

AWWA C602-00 does not address additives requirements. Thus, users of this standard should consult the appropriate state or local agency having jurisdiction in order to:

1. Determine additives requirements, including applicable standards.
2. Determine the status of certifications by all parties offering to certify products for contact with, or treatment of, drinking water.
3. Determine current information on product certification.

**II. Special Issues.** This standard has no applicable information for this section.

**III. Use of This Standard.** AWWA has no responsibility for the suitability or compatibility of the provisions of this standard to any intended application by any user. Accordingly, each user of this standard is responsible for determining that the standard's provisions are suitable for and compatible with that user's application.

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<sup>\*</sup>American National Standards Institute, 11 W. 42nd St., New York, NY 10036.

<sup>†</sup>NSF International, 789 N. Dixboro Rd., Ann Arbor, MI 48105.

<sup>‡</sup>Both publications available from National Academy of Sciences, 2102 Constitution Ave. N.W., Washington, DC 20418.

III.A. *Purchaser Options and Alternatives.* The following information should be included in the purchaser's specifications:

1. Project. Diameter, length, and location of pipeline, including plan and profile drawings when available; limits of pipeline shutdowns, if service requirements make these limits necessary; location of access manholes; location, type, and size of valves; location of interconnecting pipelines, hydrant branches, and service pipes; location of fittings and restrictions that could interfere with cleaning and lining operations; location, diameter, and connections of temporary bypass, if required; and all other details of the pipe within the scope of the contract between the purchaser and the constructor.

2. Thickness of cement–mortar lining. Nominal thickness of cement–mortar lining required (Sec. 4.4.5).

3. Services provided by purchaser. Description of all services or field operations to be performed by the purchaser, such as locating the main to be cleaned and lined; removal and replacement of line valves; operation of valves; tagging all valves that separate the main to be cleaned and lined from the water system to prevent accidental opening; shutting off all inflow of water from connecting pipelines; locating and operating blowoffs; connecting and disconnecting temporary bypasses to customer services; obtaining all permits required for the work; handling all customer contacts; disinfection; and conducting flow tests.

4. Additional work to be performed by constructor. Description of work, including repairs to deteriorated pipe; extra thickness of lining over the rivet heads and lockbar seams; excavation, backfill, and resurfacing work at access excavations; method of opening and closing access openings in the pipeline; supplying, laying, and removing temporary bypass pipe; and operation of main-line or blowoff valves.

NOTE: When it is necessary to repair deteriorated pipe before lining, the pipe will be repaired by the purchaser or under provisions of the contract between the purchaser and the constructor.

5. Water for cleaning and lining operations. Location of water sources, method of supplying, quantity available, and pressure information.

6. Disposal of cleaning water and debris. Requirements for the disposal of cleaning water, old lining, and other debris; instructions regarding permits from the responsible authorities.

7. Permissible cement–mortar materials. Preference for, or any restrictions on, type of portland cement or admixtures to be used in lining mortar.

8. Purchaser options. Options that may be included in the purchaser's specifications after reviewing the following items in the sections noted:

- a. Affidavit of compliance (Sec. 6.3).
- b. Portland cement (Sec. 4.3.1).
- c. Use of admixtures (Sec. 4.3.2, 4.4.1, and 4.4.2).
- d. Mortar lining thickness (Sec. 4.4.5).
- e. Access openings (Sec. 4.5.1).
- f. Traffic control (Sec. 4.5.1).
- g. Surface finish (Sec. 4.5.4).
- h. Cleaning of valves; new bolts and gaskets (Sec. 4.5.6.1 and 4.5.6.2).
- i. Curing by purchaser (Sec. 4.5.7.3).
- j. Temporary bypass to customers (Sec. 4.6).
- k. Disinfection of temporary bypass (Sec. 4.6.2).
- l. Leaking valves (Sec. 4.7.2).
- m. Access openings for lining for new pipe (Sec. 4.8.1).
- n. Surface finish for new pipe (Sec. 4.8.4).

III.B. *Modification to Standard.* Any modification to the provisions, definitions, or terminology in this standard must be provided in the purchaser's specifications.

**IV. Major Revisions.** The major changes made to the standard in this edition include the following:

1. The title of the standard was revised.
2. Definitions (Sec. 3) have been revised.
3. References to pozzolanic materials have been removed from Sec. 4.4.
4. Table 1 on recommended thicknesses of cement–mortar linings has been revised.
5. Sec. 5.1 has been revised for sampling and testing frequency and strength of lining.

**V. Comments.** If you have any comments or questions about this standard, please call the AWWA Volunteer and Technical Support Group, (303) 794-7711 ext. 6283, FAX (303) 795-7603, or write to the group at 6666 W. Quincy Ave., Denver, CO 80235.



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# **AWWA STANDARD FOR CEMENT-MORTAR LINING OF WATER PIPELINES IN PLACE— 4 IN. (100 mm) AND LARGER**

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## **SECTION 1: GENERAL**

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### **Sec. 1.1 Scope**

This standard describes the requirements for the materials and application of a cement-mortar lining to the inside surface of 4-in. (100-mm) and larger new and old steel, ductile-iron, and cast-iron water pipelines that have been previously installed, as well as related work. The application requirements are (1) that the lining of all straight pipe sections and long radius bends shall be performed by a machine that progresses uniformly through the pipe, applies cement mortar against the pipe surfaces, and is provided with an attachment for mechanically troweling the mortar to obtain a smooth lining of uniform thickness with smooth transitions over joints; and (2) that the lining of bends, specials, and areas adjacent to valves shall be machine sprayed and hand troweled or, where machine placement is impractical, shall be performed manually.

### **Sec. 1.2 Purpose**

The purpose of this standard is to define the minimum requirements for cement-mortar lining of water pipelines, 4 in. (100 mm) and larger, in place, including materials, design, and methods for construction.

### Sec. 1.3 Application

This standard can be referenced in specifications for cement–mortar lining of water pipelines in place, 4 in. (100 mm) and larger.

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## SECTION 2: REFERENCES

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This standard references the following documents. In their latest editions, these documents form a part of this standard to the extent specified within this standard. In any case of conflict, the requirements of this standard shall prevail.

ASTM\* C40—Standard Test Method for Organic Impurities in Fine Aggregates for Concrete.

ANSI†/ASTM C143—Standard Test Method for Slump of Hydraulic Cement Concrete.

ANSI/AWWA C500—Standard for Metal-Seated Gate Valves for Water Supply Service.

ANSI/AWWA C504—Standard for Rubber-Seated Butterfly Valves.

ANSI/AWWA C509—Standard for Resilient-Seated Gate Valves for Water Supply Service.

ASTM C150—Standard Specification for Portland Cement.

ASTM C494—Standard Specification for Chemical Admixtures for Concrete.

ASTM E11—Standard Specification for Wire Cloth and Sieves for Testing Purposes.

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## SECTION 3: DEFINITIONS

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The following definitions shall apply in this standard:

1. *Constructor*: The party that provides the work and materials for placement or installation.
2. *Purchaser*: The person, company, or organization that purchases any materials or work to be performed.

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\*American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

†American National Standards Institute, 11 W. 42nd St., New York, NY 10036.

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## SECTION 4: REQUIREMENTS

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### Sec. 4.1 Workmanship

All work shall be performed by trained personnel under the supervision of experienced persons skilled in the application of cement-mortar lining to pipelines in place.

### Sec. 4.2 Equipment

The constructor's equipment for cleaning, applying, and troweling cement-mortar in the pipe and for curing the cement-mortar lining shall be so designed and manufactured and in a condition to permit the workers to follow the procedure and obtain the results prescribed in this standard.

### Sec. 4.3 Materials for Construction

4.3.1 *Portland cement.* Portland cement shall conform to the requirements of ASTM C150 for type I or type II cement, or as otherwise specified by the purchaser.

4.3.2 *Admixtures.* To improve workability, density, and strength in the mortar, admixtures conforming to ASTM C494 may be used at the option of the constructor, unless otherwise required by the purchaser's specifications, provided that the ratio of admixture to portland cement does not exceed that used in the qualification tests of ASTM C494. No admixtures shall be used that would have a deleterious effect on potable water flowing in the pipe after the lining has been placed.

4.3.3 *Sand.* Sand shall consist of inert granular material. The grains shall be strong, durable, and uncoated. The sand shall be well graded and shall pass a No. 16 mesh screen, with not more than 5 percent passing a US Standard Sieve No. 100. (For screen and sieve sizes, refer to ASTM E11.)

4.3.3.1 *Deleterious substances in sand.* Sand shall be clean. The total combined weight of dust, clay, loam, lumps, shale, soft or flaky particles, mica, oil, alkali, and other deleterious substances shall not exceed 3 percent of the total combined weight of the deleterious substances and the sand containing them. In addition, the following limitations shall apply to specific substances:

Substance	Maximum Allowable Percentage by Weight
Shale	1
Clay lumps	1
Mica and deleterious substances other than shale and clay lumps	2

4.3.3.2 *Organic impurities.* Sand shall not show a color value darker than the "reference standard color solution" prepared as required in ASTM C40.

4.3.4 *Water.* Water for mixing mortar shall be clean and free of mud, oil, and injurious amounts of organic material or other deleterious substances. Potable water shall be used.

## **Sec. 4.4 General Cement-Mortar Lining Design**

4.4.1 *Composition.* Mortar for the lining shall be composed of cement, sand, and water that have been well mixed and are of such consistency as to produce a dense, homogeneous lining. Unless otherwise specified by the purchaser, the mortar may also include admixtures.

4.4.2 *Proportions.* The approximate proportions of cement and sand in the mortar for the lining shall be 1 part of portland cement to 1-1½ parts of sand by volume. The exact proportions shall be determined by the characteristics of the sand used. Admixtures (Sec. 4.3.2), if added, shall be used in strict compliance with the manufacturer's printed recommendations.

4.4.3 *Water content.* The water content shall be the minimum quantity that produces a workable mixture, allowing for moisture collecting on the interior of the pipe surfaces. Slump tests should be made periodically on freshly mixed mortar immediately before the mortar is conveyed to the lining machine. The tests shall be made in accordance with ANSI/ASTM C143. Nominal slumps of cement-mortar mixes for application of linings are indicated in Figures 1 and 2.

4.4.4 *Mixing.* Mortar shall be mixed long enough to obtain maximum plasticity. The mortar shall be used before initial set.

### **4.4.5 Thickness of lining.**

4.4.5.1 *General requirement.* The lining shall be uniform in thickness within the allowable tolerance, except at joints or deformations in the pipeline. Cement-mortar lining thickness shall be in accordance with Table 1, unless otherwise specified by the purchaser. If a cement-mortar lining thickness greater than ½ in. (13 mm) is required by the purchaser, the constructor shall have the option to apply the mortar lining in multiple applications. The thickness measuring device shall be agreed on by the constructor and purchaser.

4.4.5.2 *Thickness over rivets and lockbar.* The thickness of cement-mortar lining over the top of rivet heads and lockbar longitudinal seams of steel pipe shall not be less than ⅛ in. (3.2 mm), unless otherwise specified by the purchaser.

## Sec. 4.5 Methods for Construction of Rehabilitated Pipelines

4.5.1 *Access openings—general requirements.* All access openings necessary for the lining work shall be prepared and closed by the constructor, unless otherwise specified in the purchaser's specifications. Traffic control shall be as defined in the purchaser's specifications.

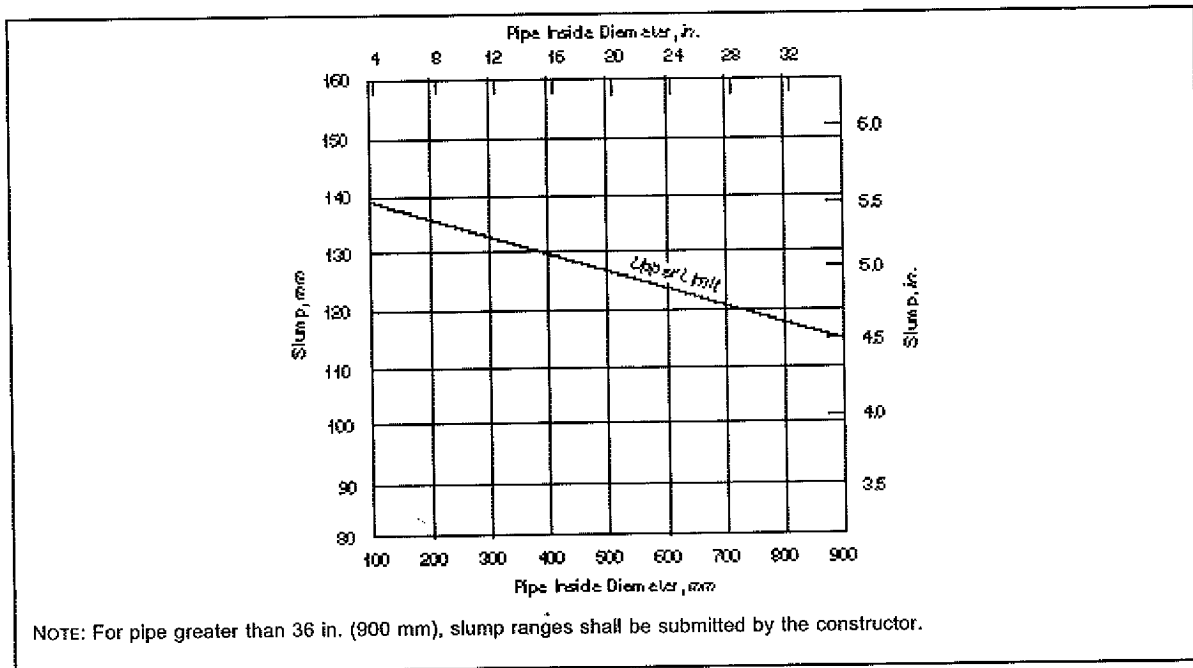


Figure 1 Nominal slumps of cement-mortar mixes for application of pipe linings using pump feed

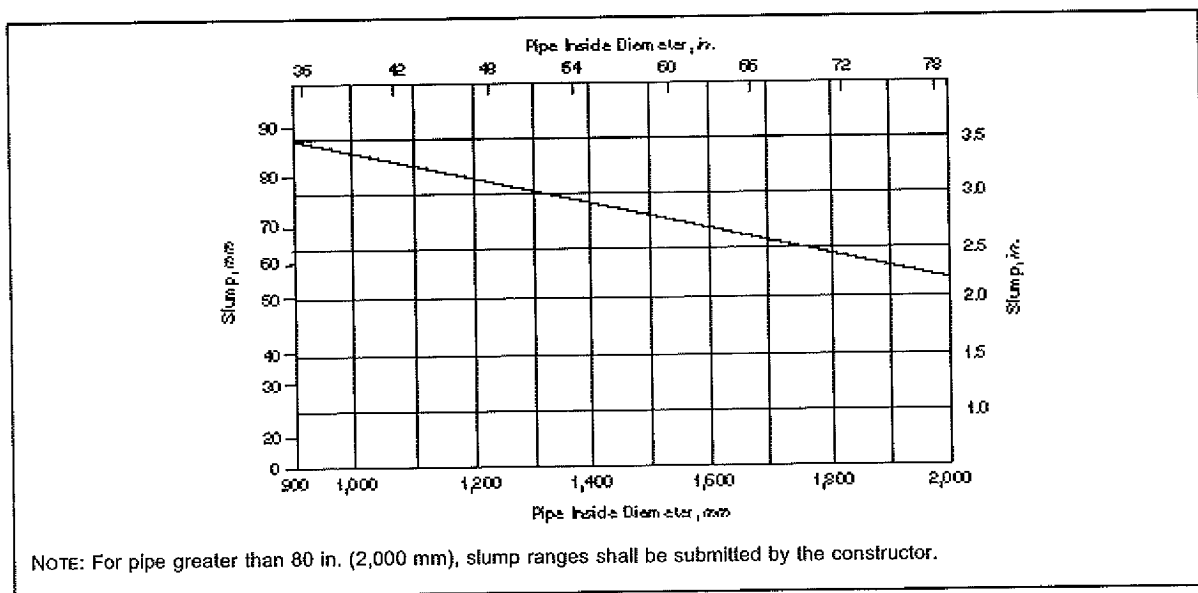


Figure 2 Slump limits of cement-mortar for application of pipe linings using mechanical feed

Table 1 Recommended thickness of cement-mortar lining for pipelines in place

Table 1. Recommended thickness of carbon steel pipe									
Pipe Diameter		Type of Pipe							
		Old Steel		Old and New Gray Cast Iron and Ductile Iron		New Steel		Tolerance	
<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>
4-10	100-250	$\frac{5}{16}$	8	$\frac{3}{16}$	4.8	$\frac{1}{4}$	6.3	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
11-23	280-580	$\frac{3}{8}$	10	$\frac{1}{4}$	6.4	$\frac{5}{16}$	8	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
24-36	600-900	$\frac{7}{16}$	11.1	$\frac{5}{16}$	8	$\frac{3}{8}$	10	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
≥36	≥900	$\frac{9}{16}$	14.3	$\frac{5}{16}$	8	$\frac{1}{2}$	13	$-\frac{1}{16}, +\frac{3}{16}$	-1.6, + 4.8

NOTE: For badly deteriorated pipe or abnormal use, the purchaser should specify a greater thickness of lining as engineering judgment indicates.

#### 4.5.2 Preparation of pipe surface.

4.5.2.1 Cleaning interior. The interior surfaces of pipe to be lined shall be cleaned by methods approved by the purchaser to remove corrosion products; chemical or other deposits; loose and deteriorated remains of old lining materials; oil; grease; and accumulations of water, dirt, and debris. When the method of cleaning the pipe does not include the use of water, laterals less than 2 in. (50 mm) in diameter shall be cleared after cleaning by backflushing with air or water wherever necessary or as required by the purchaser.

4.5.2.2 Lockbar or riveted steel pipe. The area adjacent to the lockbar or rivets shall be inspected after initial cleaning and may require cleaning by hand before lining.

#### 4.5.3 Machine application of mortar lining.

4.5.3.1 Cleanup ahead of machine. Immediately before the lining machine travels through a pipeline, all foreign material shall be removed. This includes sand and loose mortar that might have accumulated since the preparation of surfaces was completed.

4.5.3.2 Lining procedure. The lining shall be applied in one or more courses by a machine traveling through the pipe and distributing the mortar uniformly across the full section and long radius bends of the pipe. The discharge shall be from the rear of the machine so that the newly applied mortar will not be marked. The rate of travel of the machine and the rate of mortar discharge shall be mechanically regulated to produce a smooth surface and uniform thickness throughout. The mortar shall be densely packed and adhere wherever applied; there shall be no injurious rebound.

4.5.3.3 Procedure at rivets and open joints. In steel pipe 24 in. (600 mm) and larger in diameter, mortar may be applied manually ahead of the lining machine for uniform thickness over the line of rivet heads and where steel plates overlap. Open joints shall be packed with mortar before lining where necessary to provide a smooth surface across the joint. The mortared areas shall be moist and free of surface checking before proceeding with the machine lining.

4.5.4 *Surface finish.* The mortar lining in all pipe of the diameters described in this standard shall be mechanically troweled except for the places where hand troweling or the placement of an untroweled lining is expressly allowed by this standard (Sec. 4.5.4.2).

4.5.4.1 Troweled linings. The lining machine shall be provided with attachments for mechanically troweling the mortar. Both the application and troweling of the mortar shall take place at the rear of the machine so that the freshly placed and troweled mortar will not be damaged. The trowel attachment shall be such that the pressure applied to the lining will be uniform and produce a lining of uniform thickness with a smooth, finished surface, free of spiral shoulders. The finished surface of machine-placed troweled linings in pipe 24 in. (600 mm) and larger in diameter shall be examined as described in Sec. 4.5.4.1.1 and shall meet the performance criteria in Sec. 5.2.7.

4.5.4.1.1 Procedures. In the reach of pipe 24 in. (600 mm) and larger in diameter that has been lined and troweled in each day's run, 10 places shall be selected in straight sections of the pipe according to a predetermined sampling method agreed on by the purchaser and constructor. In each of the 10 places, a 12-in. (300-mm) straightedge shall be laid parallel to the axis of the pipe. In 9 of the 10 places, the space between the lined surface and the straightedge shall at no point be greater than  $\frac{1}{16}$  in. (1.6 mm) for smooth-bore pipe in good condition and  $\frac{1}{8}$  in. (3.2 mm) for pipe with a rough or irregular interior. This test shall not apply in places where the unlined pipe is too rough or irregular for the required tolerances to be met by machine lining.

4.5.4.2 Untroweled linings. The finished surface shall be smooth and regular, except that it may exhibit a slightly dimpled appearance similar to the surface of an orange. Ridges or uneven buildup caused by irregularity in the travel rate of the machine shall not be allowed.

4.5.4.2.1 Allowable untroweled lining. Untroweled cement-mortar lining is acceptable in the lining of dead-end sections, in the lining of pipe that is excessively



out of round, and in pipe 20 in. (500 mm) in diameter and smaller, when lining pipeline segments containing cocked joints, sharp bends, and angle points.

4.5.5 *Hand application of mortar lining.* Hand-placed mortar shall have a uniform surface with smooth transitions to adjacent machine-placed linings.

4.5.5.1 Allowable hand placement. In pipe 24 in. (600 mm) and larger in diameter, in places where machine placing of cement-mortar lining is impractical (such as sharp bends, specials, or areas closely adjacent to valves), lining shall be performed by hand. The purchaser may permit the correction of any defect by hand application.

4.5.5.2 Materials. Cement mortar for handwork shall be of the same materials as the mortar for machine-placed lining.

4.5.5.3 Cleaning. Areas to be lined shall be cleaned as specified in Sec. 4.5.2 and, if necessary, shall be moistened with water immediately before placing the hand-applied mortar.

4.5.5.4 Troweling. Steel finishing trowels shall be used for the hand application of cement mortar, except at bends. The outer edges of hand-troweled areas may be brushed to reduce the abutting offset.

4.5.5.5 Timing. All hand-finishing work in a section of pipeline shall be completed within 24 hr after completion of the machine application of mortar lining to that section. If necessary, application of mortar lining by machine shall be delayed or stopped to ensure compliance with this schedule.

4.5.6 *Special requirements at laterals and service connections.* Laterals and connections to the pipe that are being lined shall not be left obstructed by the lining operations.

4.5.6.1 Pipe less than 24 in. (600 mm) in diameter. After the mortar lining has been placed, but before it takes final set, laterals and services 2 in. (50 mm) and smaller in diameter shall be cleared by backflushing with air or water wherever necessary or as required by the purchaser. The backflushing shall be performed in a manner that will not damage the freshly applied lining. Unless a lateral is to be cleaned and lined, it shall not be excavated. The constructor shall clean all interior surfaces of main-line valves after the lining machine has passed. The constructor may, with the purchaser's approval, remove the bonnets and gates from main-line gate valves to accomplish the cleaning; the bonnets and gates shall then be replaced. The constructor shall, with the purchaser's approval, remove all butterfly valves from the main line when necessary and then reinstall them after the lining operation. New

bolts and gaskets for bonnet or valve replacements meeting the requirements of the applicable AWWA valve standard (ANSI/AWWA C500, ANSI/AWWA C504, or ANSI/AWWA C509) shall be supplied by the constructor, unless otherwise provided by the purchaser's specifications.

4.5.6.2 Pipe 24 in. (600 mm) and larger in diameter. Before the lining is placed, the openings in the pipeline that lead to air valves, blowoffs, manholes, and appurtenances, as well as to laterals and connections from the pipeline, shall be temporarily covered or plugged with suitable devices. These shall be removed later without damaging the cement mortar. When working inside the pipe is impractical, the constructor may clear connecting pipelines by flushing and, with the purchaser's approval, clean gate valves by removing bonnets and gates. The constructor shall, with the purchaser's approval, remove all butterfly valves from the main line when necessary. New bolts and gaskets for bonnet or valve replacement that meet the requirements of the applicable AWWA valve standard shall be supplied by the constructor, unless otherwise provided by the purchaser's specifications.

#### 4.5.7 *Curing.*

4.5.7.1 General requirements. Curing operations shall begin immediately following completion of the machine placement of the mortar lining in a section of pipeline. The section of pipe shall be closed with airtight covers over all openings and shall be maintained in a moist condition.

4.5.7.2 Curing by constructor. When a section of pipeline has been completed, the constructor shall be responsible for curing the mortar lining until the section is filled with water by the purchaser, or until the lining has been accepted by the purchaser, but in no case for more than seven days. In the event that the purchaser cannot fill the pipeline within seven days after the lining has been placed, or within the time specified by the purchaser, the constructor may be directed to extend the curing period.

4.5.7.3 Curing by purchaser. Sections of the mortar-lined pipe shall be filled with water as soon as possible after lining operations in such a manner as not to damage the lining. There shall be no pressure on any section until the mortar lining has been in place for at least 24 hr, except for pressure induced by variations in the grade of the pipeline. The filling shall be performed by the purchaser unless the purchaser's specifications stipulate otherwise.

4.5.7.4 Sprinkling exterior. The exterior surfaces of pipe exposed to sunlight shall be sprinkled with water in the daytime during the period of lining, finishing,

and curing when sprinkling is required, as determined by the constructor or the purchaser, to prevent cracking of the lining.

## **Sec. 4.6 Temporary Bypass to Customers**

**4.6.1 General description.** Temporary bypass facilities may be required to maintain service to customers connected to pipelines being cleaned and cement-mortar lined. It shall be the purchaser's responsibility to design the bypass system, including a layout of the bypass piping, customers to be serviced, the specified bypass pipe diameter to be used in specific locations, as well as the type and locations of temporary fire hydrants. When required by the purchaser, the constructor shall provide, install, maintain, and remove temporary bypass pipelines in accordance with the purchaser's specifications.

**4.6.2 Pipe and materials.** The pipe, hose, and other materials shall be supplied by the constructor for use in conjunction with temporary bypass pipe and connections to services and laterals. These materials shall withstand the pressures indicated and all other conditions of use. The pipe and fittings shall be watertight and shall be disinfected before being put into service. Disinfection shall be performed by the constructor unless the purchaser's specifications stipulate otherwise.

**4.6.3 Procedure.** Temporary bypass facilities shall include hoses and necessary outlets and fittings to each service connection. The constructor shall provide, install, and maintain the temporary bypass lines in a safe and operative condition at all times. After service has been restored to a section of water main, the constructor shall remove the temporary bypass and related facilities and shall leave the work site in a neat and orderly condition.

**4.6.4 Supply of water to feed temporary bypass.** The purchaser shall be responsible for the availability of water at sufficient pressure and in sufficient volume to supply the bypass system. The purchaser shall provide taps or other suitable feed points to which the bypass may be connected. If there are no hydrants or aboveground taps at convenient locations for bypass connection, the purchaser shall either install outlets on the system as required or direct the constructor to install the connections.

**4.6.5 Temporary connection to customers.** Before starting any work that will affect service to customers, the constructor shall notify the purchaser in advance to allow the purchaser to notify all customers accordingly. All shutoffs to customer service lines and all connections from the bypass line to the customer service lines shall be made by the constructor. If required by the purchaser, bypass service

connections requiring excavation, cutting, or tapping shall be made by the constructor unless specifically included in the purchaser's specifications. After the pipeline has been cleaned and lined, the constructor shall clear the service lines by backflushing with air or water. Where it is impossible to clear the service line because the customer's premises cannot be entered, the constructor shall excavate and clear the service at the main. The restoration of service to the customer, including disconnection from the bypass system and reconnection to the pipeline, is the constructor's responsibility unless otherwise required by the purchaser's specifications.

## **Sec. 4.7 Contingent Work**

**4.7.1 Obstructions.** Obstructions in the pipeline that prohibit the passage of cleaning or lining equipment shall be removed by the constructor. These include, but are not limited to

1. Bends, reducers, valves, or other fittings not indicated on drawings provided by the purchaser.
2. Overpoured lead joints.
3. Deformations in the pipe wall, out-of-round pipe, or defective pipe.
4. Protruding lateral or service connections.
5. Internal tie rods.
6. Successive cocked joints.

**4.7.2 Leaking valves.** The purchaser shall be responsible for preventing water from existing connections from entering the pipe before lining has been completed. The purchaser shall be responsible for the repair or replacement of leaking sideline valves as soon as discovered. The purchaser's specifications may require the constructor to do the actual work of repair or replacement, but even if not so required, the constructor shall be permitted, if the purchaser fails to act immediately, to excavate on one side or the other of the leaking valve, cut the pipe, and stop the leakage.

## **Sec. 4.8 Methods for Lining of New Steel Pipe**

**4.8.1 Access openings for lining.** The constructor may use existing manholes, flanged outlets, and pass holes for access and material feed points during the lining operations. Access openings shall be removed or replaced in accordance with purchaser's specifications. Cement-mortar lining of closures and adjacent areas shall be applied by machine or hand methods. Access to the pipeline for placing

field-applied cement-mortar lining may be obtained by one or more of the following methods:

1. Temporarily omitting short "roll-out" sections of pipe.
2. Deferring the installation of closing sections of pipe until after completion of the lining.
3. Cutting "half-cap" openings in the installed pipeline.
4. Cutting temporary feed-point manholes in the installed pipeline.

**4.8.2 Preparation of pipe surfaces.** The interior surface of the pipeline shall be cleaned before placement of cement-mortar lining. The pipe interior surface shall be free of oil, grease, and accumulations of water. Loose mill scale, dirt, rust, and construction debris shall be removed from the interior surface of the new pipeline. This may be performed by using a stiff street broom in large pipe or a drag brush in small pipe. Shot or sandblasting shall not be required.

**4.8.3 Machine application of cement-mortar lining.**

**4.8.3.1 Cleanup ahead of machine.** Immediately before the travel of the lining machine through a pipeline, all foreign material, such as sand, loose mortar, dirt, and debris shall be removed.

**4.8.3.2 Lining procedure.** The lining shall be applied in one or more courses by a machine traveling through the pipe and distributing the mortar uniformly across the full section and long radius bends of the pipe. The discharge shall be from the rear of the machine so that the newly applied mortar will not be marked. The rate of travel of the machine and the rate of mortar discharge shall be mechanically regulated to produce a smooth surface and uniform thickness throughout. The mortar shall be densely packed and adhere wherever applied; there shall be no injurious rebound.

**4.8.3.3 Procedure at joints.** Joints shall be packed with mortar before lining where necessary to provide a smooth surface across the joint. These mortared areas shall be moist and free of surface checking before proceeding with the machine lining over the joint area.

**4.8.4 Surface finish.** The mortar lining in all pipe of the diameters described in this standard shall be mechanically troweled except for the places where hand troweling or the placement of an untroweled lining is expressly allowed by this standard. (Sec. 4.8.4.2.1).

**4.8.4.1 Troweled linings.** The lining machine shall be provided with attachments for mechanically troweling the mortar. Both the application and troweling of

the mortar shall take place at the rear of the machine so that the freshly placed and troweled mortar will not be damaged. The trowel attachment shall be such that the pressure applied to the lining will be uniform and produce a lining of uniform thickness with a smooth, finished surface, free of spiral shoulders. The finished surface of machine-placed troweled lining in pipe 24 in. (600 mm) and larger in diameter shall be examined as described in Sec. 4.5.4.1.1 and shall meet the performance criteria in Sec. 5.2.7.

4.8.4.2 Untroweled linings. The finished surface shall be smooth and regular except that it may exhibit a slightly dimpled appearance similar to the surface of an orange. Ridges or uneven buildup caused by irregularity in the travel rate of the machine shall not be allowed.

4.8.4.2.1 Untroweled lining may be allowed in sections of a pipeline where the pipe to be lined is excessively out of round.

4.8.5 *Hand application of cement-mortar lining.* Hand-placed mortar shall have a uniform surface with smooth transitions to adjacent machine-placed lining.

4.8.5.1 Allowable hand placement. In pipe 24 in. (600 mm) and larger in diameter, in places where machine placing of cement-mortar lining is impractical, (such as sharp bends, specials, or areas closely adjacent to valves), lining shall be performed by hand.

4.8.5.2 Materials. Cement mortar for handwork shall be of the same materials as the mortar for machine-placed lining.

4.8.5.3 Cleaning. Areas to be lined shall be cleaned as specified in Sec. 4.8.2 and, if necessary, shall be moistened with water immediately before placing the hand-applied mortar.

4.8.5.4 Troweling. Steel finishing trowels shall be used for the hand application of cement mortar, except at bends. The outer edges of hand-troweled areas may be brushed to reduce the abutting offset.

4.8.5.5 Timing. All hand-finishing work in a section of pipeline shall be completed within 24 hr after completion of the machine application of mortar lining to that section. If necessary, application of mortar lining by machine shall be delayed or stopped to ensure compliance with this schedule.

4.8.6 *Special requirements at openings.* Laterals and connections to the pipe being lined shall not be left obstructed by the lining operations. Openings in the pipeline for manholes, outlets, and blowoffs shall be temporarily closed and covered with removable coverings or other suitable devices to prevent the intrusion of the

cement mortar into the openings. On completion of the lining, the constructor shall remove all of these covers and shall repair any lining damaged in the process.

#### 4.8.7 *Curing.*

4.8.7.1 General requirements. Curing operations shall begin immediately following completion of the machine placement of the cement-mortar lining in a section of pipeline. The section of pipe shall be closed with airtight covers over all openings, and the lining shall be maintained in a moist condition. The pipeline shall remain closed and the moist atmosphere maintained until the pipeline is filled.

4.8.7.2 Curing by constructor. When a section of pipeline has been completed, the constructor shall be responsible for careful curing of the cement-mortar lining until the section is filled with water by the purchaser, or until the lining has been accepted by the purchaser, but in no case for more than seven days. In the event that the purchaser cannot fill the pipeline within seven days after the lining has been placed, or within the time specified by the purchaser, the purchaser may direct the constructor to extend the curing period.

4.8.7.3 Curing by purchaser. Sections of the mortar-lined pipe shall be filled with water as soon as possible after lining operations in such a manner as not to damage the lining. There shall be no pressure on any section until the mortar lining has been in place for at least 24 hr, except for pressure induced by variations in the grade of the pipeline. The filling should be performed by the purchaser, unless the purchaser's specifications stipulate otherwise.

4.8.7.4 Sprinkling exterior. The exterior surfaces of pipe exposed to sunlight shall be sprinkled with water and kept moist in the daytime during the period of lining, finishing, and curing when sprinkling is required, as determined by the constructor or the purchaser, to prevent cracking of the lining.

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## SECTION 5: VERIFICATION

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### Sec. 5.1 Inspection

All materials provided and work performed will be subject to inspection. The constructor shall provide, without additional cost to the purchaser, samples and reasonable assistance for the inspection of materials and workmanship.

5.1.1 *Sampling and testing frequency.* A set of at least two standard test cylinders shall be made each day from the cement-mortar lining for each shift to

satisfy the quality control requirements of Sec. 5.1.2. Additional cement–mortar testing shall be defined in the purchaser’s specifications.

5.1.2 *Strength of cement–mortar lining.* Cement–mortar test cylinders shall attain a minimum compressive strength of 4,500 psi (31 MPa) in 28 days. Pipe with cement–mortar lining that does not meet the strength requirements described in this standard shall be subject to rejection.

## **Sec. 5.2 Inspection of Rehabilitated Pipelines**

5.2.1 *Responsibility of purchaser and constructor.* The entire procedure for applying cement–mortar lining may be subject to continuous inspection by the purchaser, but the inspection shall not relieve the constructor of the responsibility to provide material and perform work in accordance with this standard.

5.2.2 *All phases accessible to purchaser.* The purchaser shall have free access to all areas, places, or facilities concerned with the providing of material or the performance of work according to the provisions of this standard.

5.2.3 *Constructor to assist purchaser.* The constructor shall provide the purchaser reasonable assistance, without additional charge, in performing inspection duties and, specifically, in obtaining information concerning the material used and the progress of the work.

5.2.4 *Pipe inspection procedures.* The purchaser may inspect the pipeline following the application of the cement–mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with this standard.

5.2.4.1 *Small-pipe inspection procedure.* The inspection of the lining in pipe that is too small for a person to enter, less than 24-in. (600-mm) inside diameter (ID), may be made by television or from both ends of the lined pipe segment by using strong lights or mirrors. The purchaser may determine the quality of the lining from this visual inspection. Where practical, on pipelines that are less than 24-in. (600-mm) ID, the lining may be inspected by the purchaser before the lining has attained its initial set. (It is not practical to remove defective cement–mortar lining that has reached its initial set.)

5.2.4.2 *Large-pipe inspection procedure.* In pipe 24-in. (600-mm) ID and larger, a manual, visual inspection of the lined pipe interior may be made by the purchaser to determine the quality of the lining and to identify defective areas in the lining for repair. Physical inspection shall adhere to appropriate safety precautions for confined spaces.



5.2.5 *Defective lining.* Defects in cement–mortar lining include, but are not limited to, sand pockets, voids, oversanded areas, excessively cracked and drummy areas, areas of lining thinner than specified, and areas of unsatisfactory surface finish.

5.2.6 *Repair of defective lining.*

5.2.6.1 Pipe less than 24-in. (600-mm) ID. In pipe less than 24-in. (600-mm) ID, the defective lining shall be removed in total from the pipe segment before the lining has reached its initial set. The pipe segment shall then be relined in full compliance with project specifications. Defective lining rejected after initial set shall be repaired by the most practical method as determined by the purchaser, in consultation with the constructor.

5.2.6.2 Pipe 24-in. (600-mm) ID and larger. In pipe 24-in. (600-mm) ID and larger, defects in lining shall be repaired. Small defective areas shall be repaired by manual removal of the defective lining and reapplication of cement–mortar lining. Defective areas encompassing the full diameter of the pipe shall be replaced by machine wherever practical.

5.2.7 *Guarantee and performance criteria.*

5.2.7.1 Guarantee. If an examination by the purchaser of the cement–mortar lining work within a period of one year after final completion and acceptance of the work reveals evidence of defective materials or workmanship as defined in this standard, then the purchaser shall act according to the remedies in Sec. 5.2.6 of this standard. The constructor shall bear the expense and perform the repair of defective work in a manner acceptable to the purchaser.

5.2.7.2 Performance criterion—surface finish. The Hazen–Williams  $C$  factor ( $C_{hw}$ ) is a generally accepted criterion for determining the acceptability of surface finish of cement–mortar lining and restoration of carrying capacity in rehabilitated pipelines. Table 2 and Sec. 5.2.7.1 are given as a guarantee for acceptable performance in smooth-bore pipe.

## Sec. 5.3 Inspection of New Steel Pipe

5.3.1 *Responsibility of purchaser and constructor.* The entire procedure of applying cement–mortar lining may be subject to continuous inspection by the purchaser, but this inspection shall not relieve the constructor of responsibility to provide material and perform work in accordance with this standard.

Table 2 Acceptable performance for smooth-bore pipe

Pipe Inside Diameter		Guaranteed
<i>in.</i>	( <i>mm</i> )	$C_{hw}$ Factor*
4	(100)	90
6	(150)	100
8	(200)	110
10	(250)	115
12	(300)	120
14–20	(300–350)	125
>20	(>500)	130

\*Based on nominal inside of pipe diameter before cement–mortar lining. The purchaser may specify that flow tests be conducted by an independent testing firm, by the constructor, or by the purchaser. The purchaser may establish liquidated damages to be assessed against the constructor when the lined pipe does not achieve the guaranteed  $C_{hw}$  factor.

5.3.2 *All phases accessible to purchaser.* The purchaser shall have free access to all areas, places, or facilities concerned with the providing of material or the performance of work according to the provisions of this standard.

5.3.3 *Constructor to assist purchaser.* The constructor shall provide the purchaser reasonable assistance, in performing the inspection duties and specifically in obtaining information concerning the material used and the progress of the work.

5.3.4 *Pipe inspection procedures.* The purchaser may inspect the pipeline following the application of the cement–mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with this standard.

5.3.4.1 *Small-pipe inspection procedure.* The inspection of lining in pipe that is too small for a person to enter, less than 24-in. (600-mm) ID, may be made by television or from both ends of the lined pipe segment by using strong lights or mirrors. The purchaser may determine the quality of the lining from this visual inspection. Where practical, on pipelines that are less than 24-in. (600-mm) ID, the lining may be inspected by the purchaser before the lining has attained its initial set.

5.3.4.2 *Large-pipe inspection procedure.* In pipe 24-in. (600-mm) ID and larger, a manual, visual inspection of the lined pipe interior may be made by the purchaser to determine the quality of the lining and to identify defective areas in the lining for repair. Physical inspection shall adhere to appropriate safety precautions for confined space.

5.3.5 *Defective lining.* Defects in cement–mortar lining include, but are not limited to, sand pockets, voids, oversanded areas, excessively cracked and drummy

areas, areas of lining thinner than specified, and areas of unsatisfactory surface finish.

#### 5.3.6 *Repair of defective lining.*

5.3.6.1 Pipe less than 24-in. (600-mm) ID. In pipe less than 24-in. (600-mm) ID, the defective lining should be removed in total from the pipe segment before the lining has reached its initial set. The pipe segment shall then be relined in full compliance with project specifications. Defective lining rejected after initial set shall be repaired by the most practical method as determined by the purchaser, in consultation with the constructor.

5.3.6.2 Pipe 24-in. (600-mm) ID and larger. In pipe 24-in. (600-mm) ID and larger, defects in lining shall be repaired. Small defective areas shall be repaired by manual removal of the defective lining and by reapplication of mortar lining. Defective areas encompassing the full diameter of the pipe shall be replaced by machine wherever practical.

5.3.6.2.1 Lining cracks. Temperature and shrinkage cracks in the mortar lining less than  $\frac{1}{16}$  in. (1.6 mm) in width need not be repaired. Cracks wider than  $\frac{1}{16}$  in. (1.6 mm) need not be repaired if it can be demonstrated to the satisfaction of the purchaser that the cracks will heal autogenously under continuous soaking in water. The autogenous healing process may be demonstrated by any procedure that keeps the lining of the pipe continually wet or moist.

5.3.7 *Protection of lining.* Every precaution shall be taken to prevent injury to the lining. Should the constructor damage the lining at any time before completion of the contract, the damage shall be repaired conforming to the requirements of this standard.

#### 5.3.8 *Guarantee and performance criteria.*

5.3.8.1 Guarantee. If an examination by the purchaser of the cement-mortar lining work within a period of one year after final completion and acceptance of the contract work reveals evidence of defective materials or workmanship as defined in this standard, then the purchaser shall act according to the remedies in Sec. 5.3.6 of this standard. The constructor shall perform the repair of defective work in a manner acceptable to the purchaser.

5.3.8.2 Performance criterion—surface finish. The Hazen-Williams  $C$  factor ( $C_{hw}$ ) is a generally accepted criterion for determining the acceptability of surface finish of cement-mortar lining in pipelines. (Table 2 and Sec. 5.3.8.1 are given as guarantees to acceptable performance in smooth-bore pipe.)

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## SECTION 6: DELIVERY

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### **Sec. 6.1 Marking**

This standard has no applicable information for this section.

### **Sec. 6.2 Shipping**

This standard has no applicable information for this section.

### **Sec. 6.3 Affidavit of Compliance**

The purchaser may require the constructor to provide an affidavit of compliance or material test reports stating that the materials used were in compliance with the requirements of this standard. The affidavit shall be signed by the constructor.

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# **History and Development Of Water Main Rehabilitation by In-situ Cement Mortar Lining Technology**

**Joseph Dioslaki**

**Jiangwei Deng**

**Abstract:** The article expatiates on history, development, and technical advantage of Trench-less In-Place Cement Mortar Lining technology, which has been widely accepted for water main rehabilitation in USA.

**Key words:** Trench-less, In-Place Cement Mortar Lining, Water Main Rehabilitation, Technical advantage

Rehabilitation of water mains by trenchless technology methods are widely accepted in the United States. In place rehabilitation of water mains are generally accomplished by the following methods:

- Cement Mortar lining
- Epoxy Lining
- Slip-lining
- Cure-in-place
- Pipe Bursting

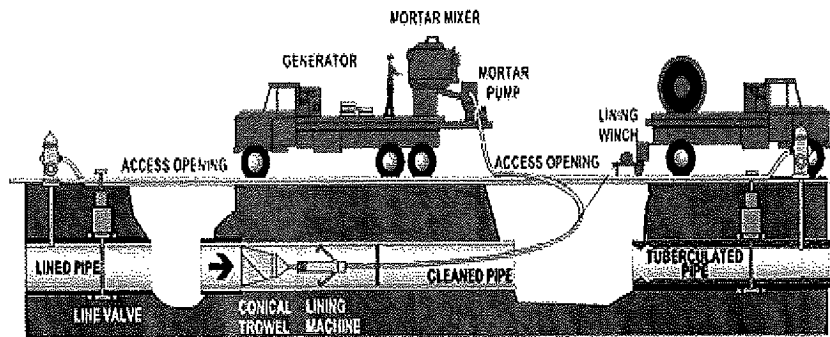
This article will address Cement Mortar Lining technology, the most widely accepted and used technology for the rehabilitation of water mains in the United States of America. The unique benefits of this method have been undiscovered in many communities throughout the world since very few introductions of this process have been made in recent times.

## **In Place Cement Mortar Lining Operating Procedures**

The following steps briefly describe the basic operating procedures:

1. Install Bypass
2. Excavate Access Pits
3. Clean Pipe
4. Apply Mortar
5. Clear Services
6. Cure Mortar

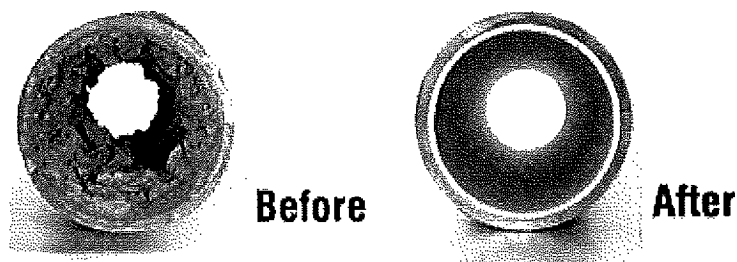
7. Pressure Test Pipe
8. Disinfect Pipe
9. Tie In To Existing System
10. Remove Bypass and Connect Services



In Place Cement Mortar Lining Operating Procedures

### History and Development of Cement Mortar Lining in USA

In the United States of America between 300 and 400 miles (between 482 and 643 km.) of water main are rehabilitated with the **In-Place Cement Mortar Lining Process** each year. This process is the most widely accepted and used technology for the rehabilitation of water mains in existence. Through the early 2000's it is estimated that over 7,000 miles (11,265 km.) of water main, ranging in diameter from 3 inches to 336 inches (7.6 cm. to 850 cm.), have been rehabilitated throughout the world by this in-place cement mortar lining process. The use of this process far exceeds the combined use of all other rehabilitation methods in existence today. The reasons for this wide acceptance are numerous. Below follows a brief history detailing cement mortar lining's evolution and growth.



Watermain Rehabilitated Before and After

The use of cement mortar as a protective lining for water mains was first reported by the French Academy of Science in 1836. By 1850, cement-lined hand coated riveted steel pipe was introduced in the United States. In the early 1930's a practical method was developed to line pipes using cement mortar by leaving the pipe intact and "in-place". This prompted the first field trial of in-place cement-mortar lining performed in Jersey City, New Jersey on a short section of 72 inch (1,830 mm) diameter steel pipe. The

success of this trial was the prelude to the 1934 cleaning and lining of 27,551 feet (8,397 m) of aged, 48 inch (1,220 mm) riveted-steel pipe supplying Newark, New Jersey. The cement mortar lining increased the Hazen-Williams<sup>1</sup> flow coefficient (from 70 to 124) to exceed its original capacity by covering over rivets and seams creating a smoother contoured pipeline, lessening disturbances in the flow stream. The cement lining also stopped all leakage that previously was occurring at seams and rivets. In 2002 this pipeline was opened, and the cement lining was observed to be in good condition.

In 1939 American Water Works Association (AWWA) published the standard for factory application of cement mortar lining to new pipe<sup>2</sup>. This standard was titled, Standard for Cement Mortar Protective Lining and Coating for Steel Water Pipe. Due to technology limitations, until 1950 the smallest diameter pipe that could be rehabilitated in-place was 24 inch (600 mm) because man entry was required to control the lining machine within the pipe. In 1950, a small diameter centrifugal lining machine that did not require man entry was developed, allowing the in-place lining of smaller diameter pipelines. As a result, in 1955 the in-place lining standard titled, AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place, Sizes 16 In. and Larger was published. By 1962 in-place cement mortar lining included pipe as small as 4 inches (100 mm) in diameter. The most recent update of this AWWA standard is dated 2000. Today technology permits in-place cement mortar lining of pipelines ranging in diameter from 3 inches (75 mm) to 28 feet (9.2m).

Beginning in the mid 1950's, a phased program by the AWWA required larger diameter water mains to be installed with an internal cement mortar lining to prevent internal corrosion and tuberculation. This requirement was the catalyst for the factory applied cement mortar lining that coats internal surfaces of new steel and ductile iron water mains being installed today. By 1965 the AWWA completed the phasing program and *required that all new steel and cast iron water mains be installed with an internal cement mortar lining*. It is clear that the benefits of cement mortar lining were understood. Since the water distribution grids in major cities throughout the United States were already mature before this date, water distributors began to notice flow reductions and discolored water due to iron oxidation and the internal buildup of corrosion. Flow reduction on the larger diameter water mains significantly affected pumping costs, while flow reductions on the smaller diameter mains alarmingly reduced flows available at fire hydrants. It quickly became evident that rehabilitation or replacement were the only options and that in-place cement mortar lining was determined to be the most economical and practical solution.

Programs were instituted to rehabilitate entire city distribution systems in a methodical fashion, starting with large diameter trunk mains, and then continuing with smaller diameter distribution grids. By 2004, some cities such as Los Angeles, California and Louisville, Kentucky had nearly completed their rehabilitation programs, while some cities such as Baltimore, Maryland and Boston, Massachusetts were in the midst of their programs. Yet other cities such as Columbia, South Carolina and Nashville, Tennessee where just beginning their rehabilitation programs.



Today, in-place cement mortar lining of cast iron and steel water mains ranging in size from 3 inches (75mm) to 28 feet (9.2m) in diameter are common practice for the economical rehabilitation of water mains in most major cities throughout the United States. These rehabilitation programs are ongoing. Water distribution agencies familiar with the cement mortar lining process maximize the use of in-place cement mortar lining since it is the most economical rehabilitation technique available. Included among them are:

• Baltimore, Maryland	• Jersey City, New Jersey
• Altoona, Pennsylvania	• Monroe County, New York
• Columbia, South Carolina	• Cleveland, Ohio
• Cincinnati, Ohio	• Los Angeles, California
• Denver, Colorado	• Boston, Massachusetts
• Louisville, Kentucky	• Nashville, Tennessee
• Chicago, Illinois	• Washington Suburban San. Com.
• New Jersey American Water Co.	• Aqua Pennsylvania

These cities and water authorities are just a few of the agencies throughout the country that have ongoing cement mortar lining rehabilitation programs. This process is the most widely accepted and used technology for the rehabilitation of water mains in existence. The cement mortar lining rehabilitation programs throughout the United States have been found to effectively double the useful service life of cast iron, ductile iron, and steel water mains, at 30 to 50 percent of replacement costs.

### **The Unique Technical Properties of In Place Cement Mortar Lining**

The application of cement mortar lining to the interior of ferrous-metal water pipelines (steel, cast iron, ductile iron) provides a smooth protective finish that indefinitely protects against internal corrosion and tuberculation. As such, the lining also prevents the recurrence of internal corrosion and tuberculation in aged water pipelines provided that proper cleaning is performed in preparation for the lining application. The lining increases pipe carrying capacities by reducing friction caused by internal surface irregularities. As a result, water distributors benefit by maximizing hydraulic carrying capacities, minimize pumping costs, preventing customer complaints of discolored water, and economically doubling pipe service life expectancies by up to 75 years.

### **Corrosion Prevention and Hydraulic performance of Cement Mortar Lining**

Cement mortar linings are unique, in that they are porous structures. Corrosion protection is achieved by the development of a highly alkaline environment within the pores. This environment is a result of the production of calcium hydroxide during cement hydration. Cement Mortar Lining (CML) is a positive way to prevent corrosion on the interior surface of cast iron pipe once and for all. The CML maintains an alkali surface on the cast iron (or ductile iron) pipe that effectively prevents corrosion for as long as the lining remains in the pipeline. This is much better than "barrier to corrosion" or a coating

system that works as a barrier and tries to prevent corrosion by keeping moisture from coming into contact with the pipe.

In addition to the water quality improvement, cement mortar lining can greatly increase the hydraulic performance of the water main. Pipeline's Hazen-Williams C factor could achieve 130~140 after being rehabilitated by cement mortar lining, which is approximately equal to new HDPE and FRP pipe (C factor is about 140). But CML typically costs less than 50% of replacement costs, and has a life span in excess of 75 years. (as the diameter increases, the proportion of savings also increases dramatically).

The difference between In-Place CML and Factory CML by way of quality

In place CML is superior to factory CML because it is made typically with a one to one ratio of silica sand to Portland cement which provides a very durable lining with compressive strengths in excess of 7,500psi while factory linings are typically a three to one ratio. Further, in-place linings are under optimum curing conditions since water is typically introduced into the main about one day after the lining is applied. Further still, the in-place lining is applied centrifugally as opposed to the factory lining in which the pipe is spun so the factory process allows segregation of the cement mortar materials. As a result, the original mixing proportion (cement/sand ratio 1:2) changes, based on the concentration of CaO, the mixing proportion ranges from 3:1 (water side) to 1:3.7 (pipe wall side). The in situ lining develops no separation of grain sizes. The cross section produces a constant mixture of 1:1 as applied.

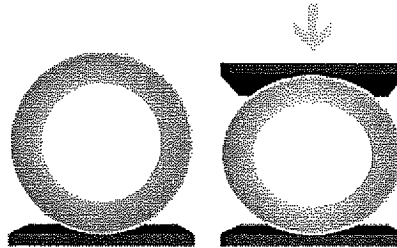
According to studies performed in Dortmund of Germany from 1972 to 1980, factory lined pipe tended to form a brittle layer on the surface of the factory lining after only three years of service. On the other hand, in-place cement mortar linings were found all to be in good condition even after 18 years of operation.

Structural performance of Cement Mortar Lining

CML itself is structural to a point. This was demonstrated in the Detroit Test which proved that a layer of less than ¼ inch CML is not as weak as thought. For a fully structural replacement that can withstand load forces and internal pressures Reinforced CML can be used on water mains 30" diameter and larger.

In 1950s, the ability of a cement-mortar lining to remain in place during deflection of the pipe was demonstrated in a deflection test conducted on a 72" (1,828.80 mm) diameter welded steel pipe section with a 5/16" (7.94 mm) wall thickness. A 1/4" (6.35 mm) cement-mortar lining was centrifugally applied and allowed to cure properly. During the following 16-month period, the lining was thoroughly dried out and the pipe was subjected to shock and vibration tests to demonstrate the integrity of the lining. At the end of this period, various loads were placed on top of the section until eventually a load section of 13" (330.20 mm) on the vertical axis was reached. Although hairline cracks appeared during the deflection, no impairment to the lining was observed either during the test or afterward when the load was removed.

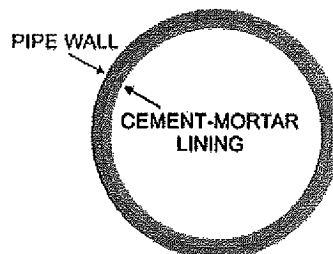
#### DURABILITY OF CEMENT-MORTAR LINING



Deflection Test of Cement Mortar Lining

A cement-mortar lining offers high compressive strength, creating an "arch action" which holds the lining in tight contact with the pipe wall. This is a major advantage over linings which rely on bond or adhesive strength to hold them in place. Cement mortar linings, while having substantial adhesion or bond, do not depend on bond to remain in place. A cement lining of proper thickness acts as a compression ring within a tension ring. It is a continuous arch which, being confined by the pipe, has no place to go. Deflection in a pipe merely increases the perimeter of the cement lining with respect to the pipe wall perimeter and thereby pushes the lining tighter against the wall of the pipe and resists the forces causing the deflection.

#### DIAGRAM OF ARCH ACTION INHERENT IN CEMENT-MORTAR LININGS



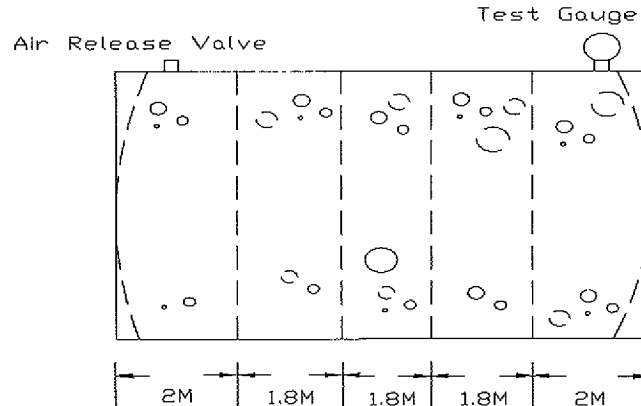
CEMENT LININGS:  
A CONTINUOUS RING,  
CONTAINED BY THE PIPE WALL

#### Ability of Cement Mortar Lining to prevent pipeline leakage

In Akron, Ohio, troubles had been experienced for some years from electrolytic action on the exterior of the city's 22 miles of parallel 36in and 48 in steel force mains. Leaks apparently resulting from corrosion started by electrolysis, continues to develop in both conduits. Investigation revealed that these leaks were caused by holes about  $\frac{1}{4}$ " in diameter, originating on the outside surface of the pipe. Resorting to tests which would simulate these actual conditions and using a comparable cement mortar lining  $\frac{1}{4}$  in thick, the engineers established to their satisfaction that holes not only of  $\frac{1}{4}$  in size, but up to and including 1  $\frac{1}{4}$  in could be spanned safely by this unsupported cement mortar lining and the leakage stopped even under water pressures of 200psi. though some "weeping"

was observable after passing 40lb. pressure in the tests, it completely stopped after 72 hours under test conditions.

Proof that Cement Mortar Lining prevents pipe leakage



Tests show that cement mortar lining prevents pipeline leakage and  
Is capable of bridging a hole over 6in diameter to withhold 305psi

In 1940 the city of Detroit, Michigan, conducted a pressure test on a length of 48" diameter x ½" wall riveted steel pipe. The section to be tested was perforated with numerous holes from 1" to 6 ¼ in diameter. Cement mortar lining was then applied to the inside of the pipe, the thickness of the lining graduating from ¼" at one end of the pipe to 1" at the other. After an adequate curing period, a prescribed hydraulic testing procedure was followed to determine the pressures at which failure might occur in the cement mortar lining. The large hole, 6 ¼" in diameter, blew out at a pressure of 305psi, with a deflection before rupture of 0.05 inches. The thickness of the lining at this particular hole was 5/8". From this test it is concluded that cement mortar lining properly applied, provides positive protection against leakage under normal operating pressures.

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**From:** Stoken, Laura (GOV)  
**Sent:** Friday, January 29, 2016 3:51 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Seychelle Advanced Patented Portable Water Filtration Products  
**Attachments:** sey pump pure info pic sheet 16.docx; sey filters types 16.docx

For your determination

**From:** Val Parsel [<mailto:vparsel@gmail.com>]  
**Sent:** Friday, January 29, 2016 12:06 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Subject:** Seychelle Advanced Patented Portable Water Filtration Products

I am following up on yesterday's phone conversation with someone in this office (I don't have the name) regarding our superior portable water filtration products. We have been contacted by so many to get in touch with your office regarding one solution to the Flint, MI water problems. Seychelle Water Filtration has been in business for over twenty years, supplying; the military, missionaries, worldwide disasters, & much more with clean filtered water. **Seychelle designs, manufactures and supplies revolutionary water filtration systems featuring breakthrough technology, most notably, Ionic Adsorption Micro Filtration.** Seychelle's exclusive Ionic Adsorption Micro Filtration is capable of reduction in all four areas of contamination: **Aesthetic, Microbiological, Chemical, and Dissolved Solids.**

**One specific product that we manufacture that is imperative in a contaminated water disaster, is our portable water filtration pump (see attached info).** The Seychelle Supreme Pump with our most Advanced technology, is designed to work with any non-plumbed available water source. Built to reduce up to 99.9999% of cysts, bacteria and viruses from virtually any water source. The NEW Supreme Pump uses Seychelle's Exclusive Ionic-Adsorption Micro-Filtration Technology to eliminate or reduce up to 99.9999% of waterborne contamination such as:

- Aesthetics like sand, silt, odors
- Chemicals from industry, agriculture, and pharmacology
- Dissolved Solids, heavy metals
- Filters up to 100 gallons of water, equal to 650 plus half liter water bottles. Replacement filters available.

Our convenient Advanced pump can be used anywhere... from schools, businesses, homes, to most any water source, except salt water. We also have other easy to use Advanced water filtration products i.e. Advanced water filtration bottles, and more... Our products provide clean water, unlike plastic water bottles where the source of the water can be questionable, plus BPA from the plastic that can also leach into the water... as well as the sustainability factor of so much plastic polluting our environment.

I would be happy to answer any questions, work with you in anyway to empower your city with a solution to offer lead free water (as well as other contaminants) in a very easy to use economical way... Please visit our website [www.seychelle.com](http://www.seychelle.com) to view our products, as well as our pump & filter information that I am attaching to this email.

Thank you for your interest & let me know if you would like any samples to try...

Best regards,

Val Parsel  
Seychelle Water Filtration

Tel. 888-577-2257

Email: [vparsel@gmail.com](mailto:vparsel@gmail.com)

Website: [www.seychelle.com](http://www.seychelle.com)





Contact: Val Parsel – 888-577-2257

## **NEW patented, portable, Advanced Water Filtration Pump**

### **Product Description**

The Seychelle **SUPREME Water Pump 2 Pure Kit** water pump includes the Seychelle™ SUPREME dual-chambered filter which filters everything all of our other filters do combined... PLUS increases the alkalinity of drinking water up to 9.5pH. It can be used with tap water or outside water sources such as rainwater, rivers, streams or even freshwater lakes. Can also be used with turbid water (stagnant) during emergencies. Cannot be used with brackish water or salt-water which may clog the filter (brackish water has more salinity than fresh water, but not as much as seawater – normally river or estuaries that are near seawater).

Increases the pH alkalinity in water, filters dissolved solids and heavy metals from water filters chemicals from water filters, pathogens from water, filters bacteria from water, filters viruses in water, filters radiation from water.

### **KEY FEATURES**

Includes one replaceable filter.

Hand pump that can attach to kitchen faucet or any other water container.

Produces up to 100 gallons of filtered water or more depending upon the quality of the source water.

Can be used with tap water or outside water sources such as rainwater, rivers, streams or even freshwater lakes. Can also be used with turbid water (stagnant) during emergencies.

Increases alkalinity of drinking water up to 9.5ph

Removes up to 99.9999% of known bacteria and viruses, including Ebola and Enterovirus.

Removes up to 99.99% radiological contaminants that can be found in drinking water.

Removes up to 99.99% of contaminants and pollutants

Proven tested technology. View Seychelle Lab Test Results.

Quick disconnect fittings are installed to allow quick adaptation.

The pump can also be used as shown with the Inline Filters.

Pump 2 Pure Carrying Case included

Can also get Drinking Water from Your Water Heater

You can use the hose attachment from your kit to get water from your water heater or your water hose. Take the hose attachment and screw it directly onto the water heater water outlet. Then attach

the In-Line filter from the bottom using the quick connect and you have access to gallons of drinking water for your family.

## **ABOUT Seychelle FILTRATION**

The Pump 2 Pure uses Seychelles' Exclusive Ionic-Adsorption Micro-Filtration Technology to eliminate or reduce up to 99.9999% of waterborne contamination such as:

**Aesthetic** – Unpleasant taste, odors, cloudiness, silt, sediment, Chlorine

**Bacteria** – Harmful Virus, Bacteriological pathogens', Cryptosporidium, Giardia

**Chemicals** – Toxic chemicals, Arsenic, Trihalomethanes, PCBs, PCEs, detergents, and pesticides (DDT).

**Dissolved Solids** – Heavy Metals, Aluminum, Asbestos, Cadmium, Chromium 6, Copper, Lead, and Mercury.

**Viruses** – Ebola, Enterovirus, Poliovirus 1, MS-2 Coliphage, Rotavirus, MERS and many more.

**Reduces up to 90% of Fluoride.**

**Alkalinity of your drinking water is increased up to 9.5ph**

**Viruses, Bacteria and Contaminants**

**Removes up to 99.99% of toxic chemicals, contaminants, and pollutants found in fresh water supplies including, but not limited to:**

**Chemicals including Chlorine, Chloroforms, Radon 222, DDT, fluoride (up to 90%).**

**Dissolved Solids and Heavy Metals including dirt, Arsenic, Asbestos, Lead, Mercury, Copper, Zinc, Aluminum, trihalomethanes, PCB, PCE, Chromium 6, and other detergents and pesticides.**

**Parasites (Cysts) including Giardia and Cryptosporidium**

**The EPA approved iodinated resin (EPA Reg #: 35917-2), in this filter has been proven effective in the removal of all bacteria and viruses to six logs (99.9999%) including, but not limited to:**

### **Bacteria:**

**Klebsiella terrigena, Legionella, Coli form, Fecal coliform, Cholera, E-Coli, MTBE, Benzene, and many more.**

### **Viruses:**

**Ebola, Enterovirus, Poliovirus 1, MS-2 Coliphage, Rotavirus, MERS and many more.**

### **Radiological Filtration**

**NELAC tested and approved for up to 100% removal of the following radioisotopes:**

**Gross Beta Particles**



**Radioactive Iodine I-131**

**Radon 222**

**Plutonium**

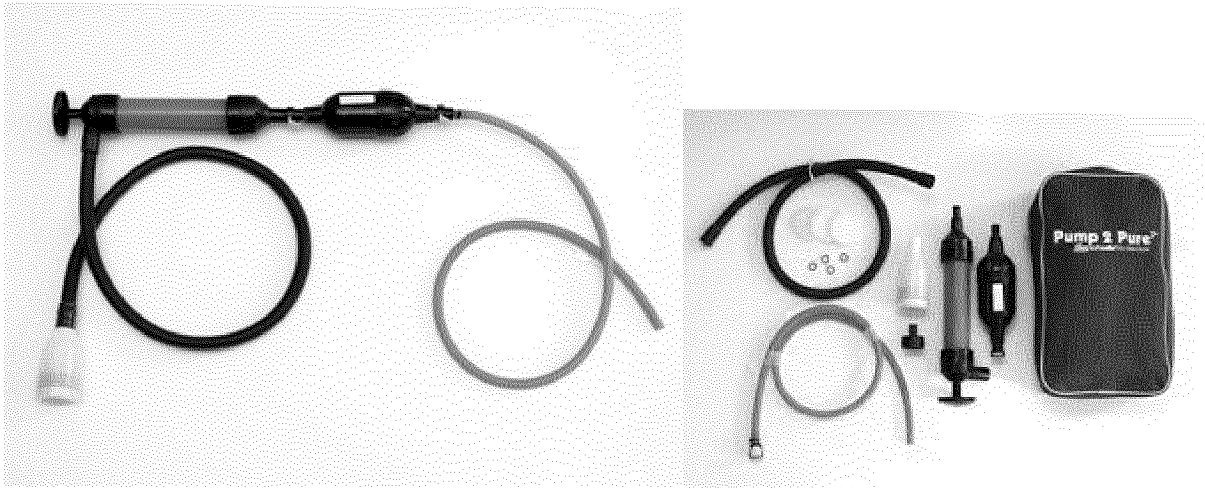
**Uranium**

**Cesium 137**

**Cesium 134**

**Radium 226 (Alpha)**

*Dedicated to improving the quality of life through the quality of our drinking water.*



"We are effectively and positively providing the solution to the public's concerns by taking water filtration to a whole new level of sophistication... via technological advancements and unsurpassed performance. The independent lab tests worldwide, prove beyond a doubt that we have a product line to be trusted." [www.seychelle.com](http://www.seychelle.com)

Seychelle is a prominent company in the fast-growing water filtration industry. We market a complete line of top-quality portable water filtration products and brands in North America and worldwide and have been for over 20 years.

For your health... Water is the single most important nutrient we consume. Our bodies are 75% water and the quality of your life is directly impacted through the quality of your drinking water. By removing harmful contaminants and pollutants, filtered water is better for you and your health.



Contact: Val Parsel – 888-577-2257

## Seychelle Water Filters

Seychelle's Ionic Adsorption Micron Filters are the most laboratory and field-tested of their kind in the world using EPA protocols and tested to NSF/ANSI Standards 42 and 53 by Broward Testing Laboratory. Beneficial trace minerals are not removed in the filtering process. What's good stays...what's bad goes.

### **TYPES OF Seychelle patented FILTERS that are in our various products...**

#### **Seychelle REGULAR Filter**

The Regular filter removes up to 99.99% of chlorine, chemicals (VOCs), heavy metals and Radon 222. Removes up to 90% of fluoride. Since it is more open in porosity, it does not remove giardia, cryptosporidium or E-Coli. It is designed to be used as a drinking water filter for use with chlorinated municipal water and as a bottled water replacement. (Not to be used with salt water)

#### **Seychelle STANDARD Filter**

The Standard filter is ideal for any in or out-door use; like traveling, hiking, biking, camping, fishing or for emergency purposes. It can be used with any type of water source; tap or rainwater, rivers, streams or even lakes (Excluding salt water). It is designed for use with water that is non-turbid, non-stagnant. It removes up to 99.99% of contaminants and pollutants found in fresh water supplies including Aesthetics such as chlorine, Sediment and dirt; Chemicals (VOC's) such as DDT, MTBE, Benzene, Chloroforms (THM's); Dissolved Solids (heavy metals) such as Arsenic, Lead, Mercury, Copper, Zinc, Aluminum, Chromium 6 and up to 99.9% of Biologicals (pathogens) such as Giardia and Cryptosporidium. Removes up to 90% of fluoride.

#### **Seychelle ADVANCED Filter**

The Advanced filter is made of the same media as the Standard filter with the addition of EPA approved iodinated resin (EPA Reg #: 35917-2), which has been proven effective in the removal of bacteria and virus to six logs (99.9999%). Removes up to 90% of fluoride. It can be used in extreme conditions; turbid and stagnant water; and is ideal for emergencies such as hurricanes, cyclones, etc. such as events that occurred in the US with Katrina and the hurricane in Haiti. (Not to be used with salt water)

#### **Seychelle RADIOLOGICAL Filter**

The Radiological filter removes the four basic zones of contamination: Aesthetic (Chlorine, taste and odor), Chemicals (from Industry and Agriculture), Dissolved Solids (heavy metals such as lead, mercury, Chromium 6) and up to 99.99% of Radiological Contaminants such as Gross Beta, Radon 222, Alpha Radium 226, Plutonium, Uranium, Cesium 134 and 137. Removes up to 90% of fluoride. (Not to be used with salt water)

#### **Seychelle EXTREME RAD/ADV Filter**

The Extreme filter removes up to 99.99% of Chlorine, Chemicals (VOC's), Heavy Metals and Radiological Contaminants. It removes up to 99.9999% of Bacteria and Virus and 99.9% of Giardia and

**Cryptosporidium for up to 100 gallons of safe drinking water. The Extreme filters are perfect when using water of an unknown quality, or emergency preparedness, when survival is threatened by earthquakes, hurricanes, tornadoes, floods, fires, radiological contamination or terrorism. Removes up to 90% Fluoride. (Not to be used with salt water)**

#### **Seychelle ALKALINE (pH Enhanced) Filter - pH2O Pure Water Filter**

**The pH Enhanced filter removes up to 99.99% of chlorine, chemicals (VOCs), heavy metals, and Radon 222. It removes up to 90% of fluoride. The new filter, incorporating proprietary medias, increase the alkalinity (pH) of drinking water sources up to 9.5pH... (Your results may vary.) Since it is more open in porosity, it does not remove giardia, cryptosporidium, virus or bacteria. It is designed to be used as a drinking water filter for use with chlorinated municipal water, as a bottled water replacement, and for those who value the benefits of high-quality, alkaline filtered water. (Not to be used with salt water)**

#### **Seychelle SUPREME Filter**

**The Supreme filter is made of the same media as the Extreme Rad/Advance filter with the addition of our proprietary pH medias used in our pH2O Pure Water filter, which increase the alkalinity of drinking water sources up to 9.5pH. The Supreme filter removes up to 99.99% of Chlorine, Chemicals (VOC's), Heavy Metals and Radiological Contaminants. It removes up to 99.9999% of Bacteria and Virus and 99.9% of Giardia and Cryptosporidium for up to 100 gallons of safe drinking water. It removes up to 90% of fluoride and increase the pH balance of drinking water up to 9.5. (Not to be used with salt water)**

*Dedicated to improving the quality of life through the quality of our drinking water.*



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The Standard filter is ideal for any in or out-door use; like traveling, hiking, biking, camping, fishing or for emergency purposes. It can be used with any type of water source; tap or rainwater, rivers, streams or even lakes (Excluding salt water). It is designed for use with water that is non-turbid, non-stagnant. It removes up to 99.99% of contaminants and pollutants found in fresh water supplies including Aesthetics such as chlorine, Sediment and dirt; Chemicals (VOC's) such as DDT, MTBE, Benzene, Chloroforms (THM's); Dissolved Solids (heavy metals) such as Arsenic, Lead, Mercury, Copper, Zinc, Aluminum, Chromium 6 and up to 99.9% of Biologicals (pathogens) such as Giardia and Cryptosporidium. Removes up to 90% of fluoride.

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**Dissolved Solids** – Heavy Metals, Aluminum, Asbestos, Cadmium, Chromium 6, Copper, Lead, and Mercury.

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**Radon 222**

**Plutonium**

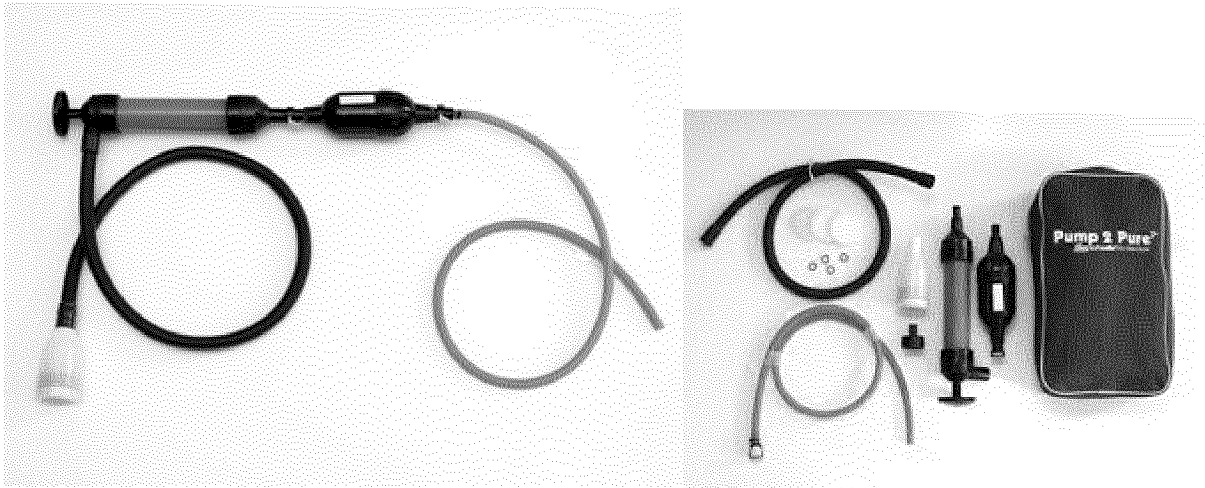
**Uranium**

**Cesium 137**

**Cesium 134**

**Radium 226 (Alpha)**

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**CONSTANCE M. BORIS, Ph.D.**



**EDUCATION**

Ph.D., Civil Engineering and Natural Resource Planning and Administration (interdisciplinary doctorate from the School of Engineering and the School of Natural Resources), University of Michigan, Ann Arbor

M.S., Water Resources Engineering, University of Michigan, Ann Arbor

M.S., Applied Mathematics, University of Michigan, Ann Arbor

B.S., Mathematics, University of Detroit

**2004 – Present**

Conducted and managed numerous environmental engineering projects that required in-depth knowledge of industrial operations for thorough environmental investigations, designing innovative approaches to ensure compliance with water, air, and wastewater discharge permits, worked on environmental dredging techniques to remediate contaminated sediment sites.

**REPRESENTATIVE PROJECTS**

**River Raisin National Battlefield Park, Monroe, MI**

Conducted environmental site assessment and investigations on industrial paper mill properties (box factory, pumphouse, sewer lines, underground vaults) and former farmland with dredge spoils that was dedicated by the U.S. National Park Service as the River Raisin National Battlefield Park in Monroe, MI.

**Hull's Road Addition to the River Raisin National Battlefield Park, South Rockwood, MI**

Conducted environmental site assessments and investigations of a two islands and part of the mainland consisting of a marina, boat launch, buildings, underground pump systems, and other structures to add to the River Raisin National Battlefield Park. This area is parallel to the old log road constructed by General Hull during the War of 1812.

**Contaminated Sediment in the Flint River in Flint, Michigan**

Conducted an extensive PCB-contaminated sediment sampling study in the Flint River and in sewers discharging to the River for a major automotive company in Flint.

**Lead Assessments of Low Income Houses in Detroit, MI**

Conducted lead paint inspections and assessments in numerous houses and the soil in low-income areas of Detroit

**Mercury-Contaminated Site, Toledo, Ohio**

Served as technical expert, consultant, and project manager for a Fortune 500 company for a mercury-contaminated site, negotiated and successfully implemented a site closure with the Ohio EPA, satisfying all regulatory requirements.

**Restoration of Lakefront Property for the Archdiocese of Detroit, Grosse Pointe, MI**

Oversight of sampling of suspect lead based paint and asbestos-containing materials in a large lakefront building for St. Paul parish; managed abatement and demolition of the building including removal of chlorofluorohydrocarbons and PCB-containing ballasts, and removal of a large underground storage tank and day tank. Required asbestos abatement, tank pull, and

demolition contractors to follow a health and safety plan including continuous air monitoring, dust emissions control, personal protective equipment, and shoring of excavations. Conducted a site investigation, sampling of the tank excavation and pipe runs as well as backfill for the excavations, and attained clean closure of the site.

#### **Hazardous Waste Landfill in Belleville, MI**

Designed and implemented an innovative 28-day Fish Biouptake Study for PCBs for a major Treatment, Storage, and Disposal Facility in Michigan, using semi-permeable membrane devices instead of live fish, which resulted in demonstrating regulatory NPDES (wastewater discharge) permit compliance by the client.

#### **Contaminated Sediment Removal, Lower Paissaic River, New Jersey**

Worked as a team member for an environmental mechanical dredging project removing 5,000 cubic yards of PCB and dioxin-contaminated sediment in the Lower Paissaic River in New Jersey as part of a high-profile demonstration project for the State of New Jersey, U.S. Department of the Army, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency.

#### **Contaminated Sediment in 10 Mile Drain Canals in St. Clair Shores, MI**

Conducted sediment sampling of the 10 Mile/Lange/Revere Canals in St. Clair Shores, Michigan and discovered higher PCB concentrations in the sediment at the 10 Mile Drain after the completion of a multi-million dollar cleanup than before cleanup was initiated.

#### **Contaminated Sediment Delineation and Removal in the Detroit River, Detroit, MI**

Initiated and prepared the first industrial Great Lakes Legacy Act application in the Detroit River Area of Concern for contaminated sediment delineation and dredging for an industrial property on the Detroit River, including a Sediment Sampling Plan, Environmental Health and Safety Plan, and a Quality Assurance Project Plan for the contaminated sediment site and received U.S. EPA approval for all the Plans.

#### **1999-2004**

##### **STS Consultants (purchased by AECOM)**

Conducted environmental assessments, investigations, remediation for major industrial clients including automotive suppliers, oil refineries, landfills, and banks. Managed staff, provided oversight on environmental health and safety plans, sampling plans, workplans, feasibility studies, and remediation. Selected representative projects include:

##### **Marathon Oil Refinery, Detroit, MI**

Characterized a 22,000 cubic yard waste pile using statistical sampling methods for Marathon Oil Refinery in Michigan, designed and implemented remediation and removal of the waste material and obtained clean closure of the site.

##### **Tower Automotive, Elkton, MI**

Conducted an environmental compliance audit and prepared a SPCC Plan for a million-square-foot Tower Automotive plant, designed and conducted pilot testing for pretreatment of industrial wastewater discharges.

##### **LaFarge Cement Corporation, Tawas City, MI**

Conducted sampling of major outfalls for mercury in wastewater, designed preventative systems to limit mercury discharges, and developed a standard operating procedure for collecting water samples for mercury analysis.

**LaSalle Bank, Chicago, IL**

Managed and assisted in conducting over 200 Phase I environmental site assessments for La Salle Bank's acquisition of banks in Michigan and Illinois.

**SBC/AT&T, Chicago, IL**

Managed and conducted oil tank surveys and oil/water separator surveys at 168 sites for SBC/AT&T and prepared numerous Spill Prevention, Control, and Countermeasures (SPCC) Plans as well as Contingency Plans.

**Kraft Foods, Chicago, IL**

Prepared an environmental management system for tracking all regulations and reporting requirements for water quality for Kraft Foods.

**1993-1999****Progressive Environmental and Engineering, Inc. and C. Boris Environmental Consulting**

Client Manager for major brownfield redevelopment projects which remediates contaminated properties for productive economic re-use.

**Carter Industrials, Inc. Superfund Site, Detroit, MI**

Managed the Carter Superfund site in Detroit, Michigan and served as the technical expert to the Potentially Responsible Party (PRP) Group which included delineating off-site PCB contamination, sampling and analysis of surface water on a monthly basis, overseeing site security and a carbon-based remediation system for PCBs in surface water runoff, and developing strong community relations with adjoining residential and industrial neighbors. The Carter Industrials, Inc. site was successfully delisted from the National Priority List.

**Former Equipment Manufacturing, Inc. (EMI) Brownfield Site, Warren, MI**

Managed the environmental investigation and remediation of a \$1.4 million industrial brownfield redevelopment site in Warren, Michigan, including environmental investigations, risk analysis, feasibility study, remedial design, and remedial action which included cleaning a 500,000 ft<sup>2</sup> plant floor, removing three large PCB transformers, removing asbestos & lead-based paint, cleaning and filling in press pits, removing over 100 drums of liquid, removing rail spurs and lead-contaminated soil, sampling oil reservoirs in machinery and disposal of machinery, removing tanks, and decontaminating overhead cranes, walls, and floors to achieve site closure. Other site work included the removal of 5,000 cubic yards of scrap metal, demolition debris, and contaminated soil in the adjacent storage yards and the preparation of bid documents for implementing the remedial action. The clean closure of this site, pursuant to a Clean Michigan Initiative grant, resulted in re-use of the site.

**Former Parker Majestic Site, Detroit, MI**

Managed the environmental investigation and remediation of the former Parker Majestic site, including an investigation of soil contamination, remediation of former PCB transformer areas, and removal of large underground storage tanks. Achieved clean site closure and reuse of the site as a park area near Stroh's Place.

**Former Chesterfield Township Sludge Lagoon System, Chesterfield Twp., MI**

Managed the environmental investigation of a \$150 million industrial re-development project in Chesterfield Township, Michigan which included soil and groundwater investigations, surface water, and sediment sampling for a 70-acre, three-cell lagoon, remedial design and implementation of a lagoon dewatering closure plan, which culminated in clean closure.

**GM Tarrytown Plant, Tarrytown, New Jersey**

Prepared bid documents for stormwater pollution prevention and permit during demolition of a large GM plant in Tarrytown, New Jersey.

**Compliance Audits**

Conducted numerous compliance audits for private sector clients including drum and hazardous waste labels, secondary containment, pipe markings, secondary containment, paint and solvent storage cabinets, lock-out/tag-out, inventory compliance, and other requirements.

**1990-1993**

**WW ENGINEERING & SCIENCE, INC.**

**Associate, Client Manager for General Motors, Sherwin-Williams, and Petro-Chem Processing, Senior Project Manager**

**General Motors - Environmental Investigation, Design, and Remediation**

Managed over 20 large successful projects for GM plants in Flint, Michigan including extent of PCB contamination studies, design and remediation of contaminants in buildings, sewer lines and outfalls, storage areas, tank farms, underground vaults, and rail lines; treatability studies for pretreatment of oily wastewater, river sediment sampling; engineering design and implementation of remedial systems for free product removal from two large underground tank farms, an automotive spring manufacturing plant, and coolant spill remediation from an engine assembly plant. Also, managed and prepared the first industrial stormwater permit application to the State of Michigan for GM, including wastewater discharge sampling at major outfalls into the Flint River during rainfall events.

**Petro-Chem Processing – Environmental Investigation, Design, and Remediation**

Managed 12 engineering and hydrogeological projects for a major Treatment, Storage, and Disposal facility including a hydrogeological investigation for a Michigan Act 64 permit; extent of contamination investigations for both soil and groundwater; the first use of synthetic leachate testing for characterizing hazardous waste as an alternative to the Toxicity Characteristic Leachate Procedure; a major risk assessment study; remedial design and workplans for remediating metals and volatile organic compounds in soils.

**1988-1990**

**HART ENVIRONMENTAL MANAGEMENT CORP. (sold to McLaren Engineers)**

Managed the investigation and remediation of environmental projects for a major automotive company and several major Superfund sites in Michigan and Ohio.

**Manager, Hydrogeological Engineering Department**

Managed environmental site investigations, design, and remediation contractors for Superfund sites on behalf of Chrysler Corporation; managed the first soil flushing system in Michigan using a network of extraction wells, monitoring wells, pumps, and activated carbon systems to remediate a solvent-contaminated site; served on Potentially Responsible Party (PRP) committees representing industrial clients involved in Superfund sites; oversaw the EPA investigation of the Walker Superfund battery reclamation site; managed environmental compliance and liability audits for property transfers; managed and oversaw the installation and monitoring of carbon filtration system for remediating PCB concentrations in wastewater discharges at the Carter Industrials Inc. Superfund site; and obtained a 250-point reduction in a state agency's site hazard ranking score for the Carter Industrials Superfund site based on analysis.

**1985-1988**

**U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C.**

**OFFICE OF WASTE PROGRAMS ENFORCEMENT**

As assistant to the Director of EPA's Office of Waste Programs Enforcement, served to manage public policy and analysis in the environmental protection of the nation's soil, water and air resources, especially for Superfund sites and other hazardous waste sites.

**Special Assistant to the Director**

Resolved National Priority List (NPL or Superfund) site issues, coordinated regulatory programs between Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), which regulates hazardous wastes from cradle to grave; developed incentives for voluntary private party cleanups of Superfund sites through covenants-not-to-sue, cost recovery, mixed funding settlements, non-binding allocations of responsibility, de minimus buyouts, and other incentives in lieu of Section 106 enforcement orders, and prepared Congressional testimony.

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**Environmental Protection Specialist**

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**1980-1985**

**UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN**

**Assistant Professor**

Taught undergraduate and graduate courses in Mathematical Modeling of Natural Resource Systems, Natural Resource Policy, and Risk Analysis; conducted research on incentives for voluntary cleanup of Superfund sites and liability issues.

**1975-1980**

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**Fellow, Research Associate**

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MDEQ - Certified Storage Tank Professional (#633).

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Board Member, Wayne County Farm Bureau (2012 – 2015)

Board Member, Haiti and Africa Relief Team, Inc. (2010 – 2014)

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President, Society of American Military Engineers (S.A.M.E.), Detroit Post, 2008-2009.

Chair, 2009 S.A.M.E. Great Lakes and Ohio Valley Regional Conference held at the Detroit Marriott in Detroit, MI in cooperation with the U.S. Army Corps of Engineers.

Chair, Detroit River Remedial Action Plan Public Advisory Council.

Vice-Chair and Member of the Board of Directors, Detroit River Remedial Action Plan Partnership, Inc.

Special Assistant to the Chairman of the Governor's Special Commission on Energy.

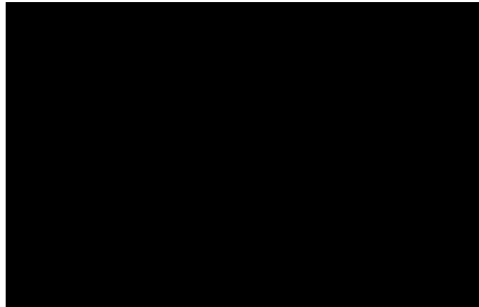
Message

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**From:** Stoken, Laura (GOV) [/O=MIGOV/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=JESSL]  
**Sent:** 1/29/2016 9:05:22 PM  
**To:** Sachs, Tori (GOV) [/O=MIGOV/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Rexfordv]  
**CC:** Saunders, Kelli (GOV) [/O=MIGOV/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Saundersk1]  
**Subject:** FW: Technical Assistance on Flint Water Issue  
**Attachments:** Connie Boris Resume.doc

For you

**From:** Connie Boris [mailto:cboris4@gmail.com]  
**Sent:** Friday, January 29, 2016 3:37 PM  
**To:** Calley, Brian (GOV) <Brian.Calley@michigan.gov>  
**Subject:** Technical Assistance on Flint Water Issue



TO: Lt. Governor Brian Calley

FROM: Connie Boris, Ph.D.

RE: Technical Assistance on Flint Water Issue

DATE: January 29, 2016

It has been on my mind for a few weeks now to offer my technical environmental engineering expertise to assist the Snyder Administration to work on the water quality problem in Flint. I'm familiar with Flint as my dear godfather and my Aunt Mary lived on Lomita Street adjacent to the GM engine plant. I even have memories of the water running from their home faucet back then.

By way of education, I have a Ph.D. in Civil Engineering: Water Resources Engineering from the University of Michigan in Ann Arbor.

My work experience over the past 25 years includes working at the Office of Water at the U.S. Environmental Protection Agency Headquarters in Washington D.C. and in the Office of Waste Programs Enforcement (i.e., Superfund Site work), Assistant Professor at the University of Michigan in Ann Arbor, and environmental consulting including contaminant investigation and remediation for major industrial clients (e.g., General Motors' automotive plants in Flint and sediment sampling in the Flint River). More recently, I've been working with the U.S. National Park Service on environmental issues related to expanding the River Raisin National Battlefield Park. I also served on the State of Michigan Environmental Science Board.

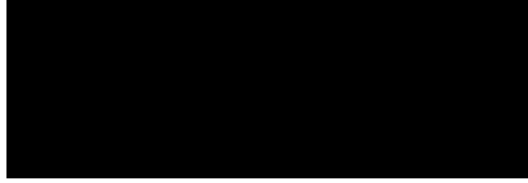
If Governor Snyder's administration is interested in my assistance on the Flint water issue, I've attached a resume and always feel free to call me at [REDACTED]

Sincerely,

Connie Boris



**CONSTANCE M. BORIS, Ph.D.**



**EDUCATION**

Ph.D., Civil Engineering and Natural Resource Planning and Administration (interdisciplinary doctorate from the School of Engineering and the School of Natural Resources), University of Michigan, Ann Arbor

M.S., Water Resources Engineering, University of Michigan, Ann Arbor

M.S., Applied Mathematics, University of Michigan, Ann Arbor

B.S., Mathematics, University of Detroit

**2004 – Present**

Conducted and managed numerous environmental engineering projects that required in-depth knowledge of industrial operations for thorough environmental investigations, designing innovative approaches to ensure compliance with water, air, and wastewater discharge permits, worked on environmental dredging techniques to remediate contaminated sediment sites.

**REPRESENTATIVE PROJECTS**

**River Raisin National Battlefield Park, Monroe, MI**

Conducted environmental site assessment and investigations on industrial paper mill properties (box factory, pumphouse, sewer lines, underground vaults) and former farmland with dredge spoils that was dedicated by the U.S. National Park Service as the River Raisin National Battlefield Park in Monroe, MI.

**Hull's Road Addition to the River Raisin National Battlefield Park, South Rockwood, MI**

Conducted environmental site assessments and investigations of a two islands and part of the mainland consisting of a marina, boat launch, buildings, underground pump systems, and other structures to add to the River Raisin National Battlefield Park. This area is parallel to the old log road constructed by General Hull during the War of 1812.

**Contaminated Sediment in the Flint River in Flint, Michigan**

Conducted an extensive PCB-contaminated sediment sampling study in the Flint River and in sewers discharging to the River for a major automotive company in Flint.

**Lead Assessments of Low Income Houses in Detroit, MI**

Conducted lead paint inspections and assessments in numerous houses and the soil in low-income areas of Detroit

**Mercury-Contaminated Site, Toledo, Ohio**

Served as technical expert, consultant, and project manager for a Fortune 500 company for a mercury-contaminated site, negotiated and successfully implemented a site closure with the Ohio EPA, satisfying all regulatory requirements.

**Restoration of Lakefront Property for the Archdiocese of Detroit, Grosse Pointe, MI**

Oversight of sampling of suspect lead based paint and asbestos-containing materials in a large lakefront building for St. Paul parish; managed abatement and demolition of the building including removal of chlorofluorohydrocarbons and PCB-containing ballasts, and removal of a large underground storage tank and day tank. Required asbestos abatement, tank pull, and

demolition contractors to follow a health and safety plan including continuous air monitoring, dust emissions control, personal protective equipment, and shoring of excavations. Conducted a site investigation, sampling of the tank excavation and pipe runs as well as backfill for the excavations, and attained clean closure of the site.

#### **Hazardous Waste Landfill in Belleville, MI**

Designed and implemented an innovative 28-day Fish Biouptake Study for PCBs for a major Treatment, Storage, and Disposal Facility in Michigan, using semi-permeable membrane devices instead of live fish, which resulted in demonstrating regulatory NPDES (wastewater discharge) permit compliance by the client.

#### **Contaminated Sediment Removal, Lower Paissaic River, New Jersey**

Worked as a team member for an environmental mechanical dredging project removing 5,000 cubic yards of PCB and dioxin-contaminated sediment in the Lower Paissaic River in New Jersey as part of a high-profile demonstration project for the State of New Jersey, U.S. Department of the Army, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency.

#### **Contaminated Sediment in 10 Mile Drain Canals in St. Clair Shores, MI**

Conducted sediment sampling of the 10 Mile/Lange/Revere Canals in St. Clair Shores, Michigan and discovered higher PCB concentrations in the sediment at the 10 Mile Drain after the completion of a multi-million dollar cleanup than before cleanup was initiated.

#### **Contaminated Sediment Delineation and Removal in the Detroit River, Detroit, MI**

Initiated and prepared the first industrial Great Lakes Legacy Act application in the Detroit River Area of Concern for contaminated sediment delineation and dredging for an industrial property on the Detroit River, including a Sediment Sampling Plan, Environmental Health and Safety Plan, and a Quality Assurance Project Plan for the contaminated sediment site and received U.S. EPA approval for all the Plans.

#### **1999-2004**

##### **STS Consultants (purchased by AECOM)**

Conducted environmental assessments, investigations, remediation for major industrial clients including automotive suppliers, oil refineries, landfills, and banks. Managed staff, provided oversight on environmental health and safety plans, sampling plans, workplans, feasibility studies, and remediation. Selected representative projects include:

##### **Marathon Oil Refinery, Detroit, MI**

Characterized a 22,000 cubic yard waste pile using statistical sampling methods for Marathon Oil Refinery in Michigan, designed and implemented remediation and removal of the waste material and obtained clean closure of the site.

##### **Tower Automotive, Elkton, MI**

Conducted an environmental compliance audit and prepared a SPCC Plan for a million-square-foot Tower Automotive plant, designed and conducted pilot testing for pretreatment of industrial wastewater discharges.

##### **LaFarge Cement Corporation, Tawas City, MI**

Conducted sampling of major outfalls for mercury in wastewater, designed preventative systems to limit mercury discharges, and developed a standard operating procedure for collecting water samples for mercury analysis.

**LaSalle Bank, Chicago, IL**

Managed and assisted in conducting over 200 Phase I environmental site assessments for La Salle Bank's acquisition of banks in Michigan and Illinois.

**SBC/AT&T, Chicago, IL**

Managed and conducted oil tank surveys and oil/water separator surveys at 168 sites for SBC/AT&T and prepared numerous Spill Prevention, Control, and Countermeasures (SPCC) Plans as well as Contingency Plans.

**Kraft Foods, Chicago, IL**

Prepared an environmental management system for tracking all regulations and reporting requirements for water quality for Kraft Foods.

**1993-1999****Progressive Environmental and Engineering, Inc. and C. Boris Environmental Consulting**

Client Manager for major brownfield redevelopment projects which remediates contaminated properties for productive economic re-use.

**Carter Industrials, Inc. Superfund Site, Detroit, MI**

Managed the Carter Superfund site in Detroit, Michigan and served as the technical expert to the Potentially Responsible Party (PRP) Group which included delineating off-site PCB contamination, sampling and analysis of surface water on a monthly basis, overseeing site security and a carbon-based remediation system for PCBs in surface water runoff, and developing strong community relations with adjoining residential and industrial neighbors. The Carter Industrials, Inc. site was successfully delisted from the National Priority List.

**Former Equipment Manufacturing, Inc. (EMI) Brownfield Site, Warren, MI**

Managed the environmental investigation and remediation of a \$1.4 million industrial brownfield redevelopment site in Warren, Michigan, including environmental investigations, risk analysis, feasibility study, remedial design, and remedial action which included cleaning a 500,000 ft<sup>2</sup> plant floor, removing three large PCB transformers, removing asbestos & lead-based paint, cleaning and filling in press pits, removing over 100 drums of liquid, removing rail spurs and lead-contaminated soil, sampling oil reservoirs in machinery and disposal of machinery, removing tanks, and decontaminating overhead cranes, walls, and floors to achieve site closure. Other site work included the removal of 5,000 cubic yards of scrap metal, demolition debris, and contaminated soil in the adjacent storage yards and the preparation of bid documents for implementing the remedial action. The clean closure of this site, pursuant to a Clean Michigan Initiative grant, resulted in re-use of the site.

**Former Parker Majestic Site, Detroit, MI**

Managed the environmental investigation and remediation of the former Parker Majestic site, including an investigation of soil contamination, remediation of former PCB transformer areas, and removal of large underground storage tanks. Achieved clean site closure and reuse of the site as a park area near Stroh's Place.

**Former Chesterfield Township Sludge Lagoon System, Chesterfield Twp., MI**

Managed the environmental investigation of a \$150 million industrial re-development project in Chesterfield Township, Michigan which included soil and groundwater investigations, surface water, and sediment sampling for a 70-acre, three-cell lagoon, remedial design and implementation of a lagoon dewatering closure plan, which culminated in clean closure.

**GM Tarrytown Plant, Tarrytown, New Jersey**

Prepared bid documents for stormwater pollution prevention and permit during demolition of a large GM plant in Tarrytown, New Jersey.

**Compliance Audits**

Conducted numerous compliance audits for private sector clients including drum and hazardous waste labels, secondary containment, pipe markings, secondary containment, paint and solvent storage cabinets, lock-out/tag-out, inventory compliance, and other requirements.

**1990-1993**

**WW ENGINEERING & SCIENCE, INC.**

**Associate, Client Manager for General Motors, Sherwin-Williams, and Petro-Chem Processing, Senior Project Manager**

**General Motors - Environmental Investigation, Design, and Remediation**

Managed over 20 large successful projects for GM plants in Flint, Michigan including extent of PCB contamination studies, design and remediation of contaminants in buildings, sewer lines and outfalls, storage areas, tank farms, underground vaults, and rail lines; treatability studies for pretreatment of oily wastewater, river sediment sampling; engineering design and implementation of remedial systems for free product removal from two large underground tank farms, an automotive spring manufacturing plant, and coolant spill remediation from an engine assembly plant. Also, managed and prepared the first industrial stormwater permit application to the State of Michigan for GM, including wastewater discharge sampling at major outfalls into the Flint River during rainfall events.

**Petro-Chem Processing – Environmental Investigation, Design, and Remediation**

Managed 12 engineering and hydrogeological projects for a major Treatment, Storage, and Disposal facility including a hydrogeological investigation for a Michigan Act 64 permit; extent of contamination investigations for both soil and groundwater; the first use of synthetic leachate testing for characterizing hazardous waste as an alternative to the Toxicity Characteristic Leachate Procedure; a major risk assessment study; remedial design and workplans for remediating metals and volatile organic compounds in soils.

**1988-1990**

**HART ENVIRONMENTAL MANAGEMENT CORP. (sold to McLaren Engineers)**

Managed the investigation and remediation of environmental projects for a major automotive company and several major Superfund sites in Michigan and Ohio.

**Manager, Hydrogeological Engineering Department**

Managed environmental site investigations, design, and remediation contractors for Superfund sites on behalf of Chrysler Corporation; managed the first soil flushing system in Michigan using a network of extraction wells, monitoring wells, pumps, and activated carbon systems to remediate a solvent-contaminated site; served on Potentially Responsible Party (PRP) committees representing industrial clients involved in Superfund sites; oversaw the EPA investigation of the Walker Superfund battery reclamation site; managed environmental compliance and liability audits for property transfers; managed and oversaw the installation and monitoring of carbon filtration system for remediating PCB concentrations in wastewater discharges at the Carter Industrials Inc. Superfund site; and obtained a 250-point reduction in a state agency's site hazard ranking score for the Carter Industrials Superfund site based on analysis.

**1985-1988**

**U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C.**

**OFFICE OF WASTE PROGRAMS ENFORCEMENT**

As assistant to the Director of EPA's Office of Waste Programs Enforcement, served to manage public policy and analysis in the environmental protection of the nation's soil, water and air resources, especially for Superfund sites and other hazardous waste sites.

**Special Assistant to the Director**

Resolved National Priority List (NPL or Superfund) site issues, coordinated regulatory programs between Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), which regulates hazardous wastes from cradle to grave; developed incentives for voluntary private party cleanups of Superfund sites through covenants-not-to-sue, cost recovery, mixed funding settlements, non-binding allocations of responsibility, de minimus buyouts, and other incentives in lieu of Section 106 enforcement orders, and prepared Congressional testimony.

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Vice-Chair and Member of the Board of Directors, Detroit River Remedial Action Plan Partnership, Inc.

Special Assistant to the Chairman of the Governor's Special Commission on Energy.

---

**From:** Stoken, Laura (GOV)  
**Sent:** Friday, January 29, 2016 4:19 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company- S313594

Charles Bondy  
760-473-4249  
[chas007y@yahoo.com](mailto:chas007y@yahoo.com)

Sir, I am from California and I would suggest that you get your best engineer (and I mean your BEST ENGINEER) to look at [www.phoenixenergynv.com](http://www.phoenixenergynv.com) They have a new process for renewable energy using induction and magnetic fields. These people can help solve your Flint water problem. Then off the site, contact either Brian Smith or Mike Dooley. They are the engineer founders of this new process.

You put out a call for a solution, here it is.

Charles Bondy

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**From:** BrownleeJ@michigan.gov  
**Sent:** Thursday, February 18, 2016 9:26 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: 3/4  
**Attachments:** FW5 (2).zip; ATT00001.htm

Sent from my iPhone

Begin forwarded message:

From: "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
To: "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Subject: FW: 3/4

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Sachs, Tori (GOV)  
Sent: Tuesday, February 09, 2016 7:39 PM  
To: Lord, Daniel (DNR); Weise, Kevin (MSP)  
Subject: 3/4

Sorry for the multiple emails. Just want you to have all of these.

Tori Sachs  
External Affairs Advisor  
Office of Gov. Rick Snyder  
C: 517-775-3688



---

**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 6:34 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Company S313625

Jack Lee  
PO Box 426 Sweetwater, TX 79556  
[KJ7359@gmail.com](mailto:KJ7359@gmail.com)  
325.235.8491

I-20 Envoro-tech has a water solution system for the issue of lead in Flint's water..We have a mobil e-c unit capable of cleaning 1.2 million gallons of water a day.Based on requirements the unit will clean water to drinking stage. We would be glad to run a test. We are based in Texas and have extensive recycling and hydro engineering experience.

Laura Stoken  
Manager, Constituent Relations  
Executive Office of the Governor, Rick Snyder  
517.335.7858

---

**From:** Stoken, Laura (GOV)  
**Sent:** Thursday, January 28, 2016 2:54 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company - Flint Water Crisis

**Importance:** High

For your determination

---

**From:** Reno [<mailto:savetax@accesscomm.ca>]  
**Sent:** Thursday, January 28, 2016 1:21 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>; Hunter, Janet (DHHS) <[HunterJ8@michigan.gov](mailto:HunterJ8@michigan.gov)>  
**Subject:** Request For Assistance - Flint Water Crisis  
**Importance:** High

Gentlemen,

Greetings from north of the boarder. My name is Reno Giambattista. I reside in Regina, Saskatchewan, Canada. I hope this email reaches you as I was unable to go through the contact portal on your main website as it does not allow Canadian based content and after contacting your office by phone I was given some more direction on who to reach out to.

First and foremost, I hope you are making more and more positive strides in your pursuit of a 'fix' for the current water crisis in Flint. I and many fellow Canadians have been following it very closely.

The intent of this email is in the hope that my great friend's company, Pure Water Box, may be able to help assist you in your efforts. In a nutshell, Pure Water Box resides in Markham, ONT. and has the ability to provide an ERT (Emergency Response Trailer) that can be operational within hours of arrival at a disaster/crisis zone. It is probably one of the most innovative and reliable systems I have ever had the chance to set on eyes on.

I know you are very busy with tons of groups reaching out to you and that you have limited resources, but I strongly feel that the conversation with the President of the company, Ryan Mitchell, is well worth the time and energy in order to see what can be accomplished.

For more information please go to [www.purewaterbox.ca](http://www.purewaterbox.ca).

Ryan Mitchell's direct contact info is Cell: (416) 662-6923 Email: [ryan@purewaterbox.ca](mailto:ryan@purewaterbox.ca)

Thank you in advance for your time and all the best in your endeavours to fix what needs to be fixed.

Sincerely,

Reno

---

**From:** Rich Baird <rbaird003@hotmail.com>  
**Sent:** Thursday, January 28, 2016 2:59 PM  
**To:** Dennis Cawthorne; Baird, Richard (GOV)  
**Cc:** Sachs, Tori (GOV)  
**Subject:** Re: Message from Dennis Cawthorne

These are coming out of the woodwork. I have just assigned a person to inventory and track these requests to the folks accountable for making decisions on procurement in the departments. Thank you.

Rich

Sent from [Outlook Mobile](#)

On Thu, Jan 28, 2016 at 8:46 AM -0800, "Dennis Cawthorne" <[DCawthorne@kelley-cawthorne.com](mailto:DCawthorne@kelley-cawthorne.com)> wrote:

Rich:

I'm sure you are being inundated with matters involving the Flint crisis. However, I thought the following may possibly be of interest and value to you:

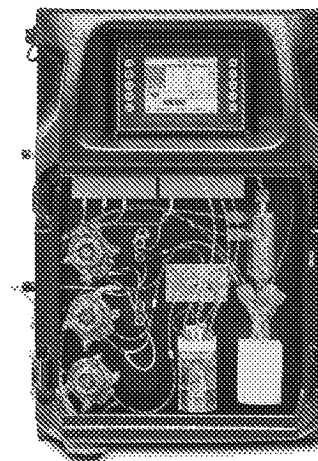
Vogel-Brown, a firm located in northern Virginia, contacted me through a mutual friend, stating that in 2015 they became the USA distributors of Japanese patented water cleansing technology that is capable of cleaning/removing large amounts of iron, lead, and bacteria, including Cryptosporidium, from municipal water systems. They inform me that the Japanese have been using this technology for 20+ years and have 19 million households using individual units. Their focus is an HVAC application which removes all metals, minerals, and microbials from HVAC systems water, without using any chemicals, and by application of electrolysis.

They have an interest in being of assistance in the current crisis. They have asked if it would be possible to get "the latest Lab Report from the Flint water facility which should identify all the microbials, chemicals, metals, and minerals, and their concentrations" so the company can intensify its efforts to see if their technology may be applicable and of value to the State of Michigan.

Dennis Cawthorne



Single and multi-parameter  
determination of trace metals in  
water by on-line voltammetry



### Advanced features

- Flexibility in analytical mainframe: single or double ASV cell
- Pre-treatment options for complexed forms or higher organic content
- Easy operation and simple maintenance
- Complete separation between electronics and wet part
- Multiplexing up to eight (8) sampling points possible
- Incorporated industrial PC with AppliTek controller software
- Extended data communication and exchange features

### Application fields

Determination of trace metals/heavy metals in clean waters:

- Surface water
- Drinking water
- Mineral water
- Waste water effluent

### High analytical performance

- Low sample and reagent consumption
- Excellent correlation with standard laboratory methods
- Smart features: automatic calibration and automatic cleaning
- Factory configured, tested and calibrated

## Technical specifications

### Analytical data

#### Analysis method

Anodic Stripping Voltammetry (ASV)

#### Parameters

Antimony (Sb), arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), iron (Fe), lead (Pb), manganese (Mn), mercury (Hg), molybdenum (Mo), nickel (Ni), platinum (Pt), selenium (Se), silver (Ag), tin (Sn), zinc (Zn)

Examples of combinations:

Cd + Cu + Pb + Zn, additionally Ni

As(III) + As(total) + Hg

As (total) + Hg + Sn

#### Cycle time

ASV analysis: 15 minutes

Optional oxidation: 20 minutes

*Note: oxidation time can be set to 60 minutes for difficult samples*

#### Calibration

Factory calibrated

#### Cleaning

Automatic, free adjustable sequence

#### Detection limit

ppb levels, depending on parameter

#### Precision / Repeatability

Better than 5% full scale for standard solutions

### Environmental data

#### Ambient operating conditions

10 °C – 30 °C +/- 4 °C deviation at 5 - 95% relative humidity non-condensing  
(50 °F – 86 °F +/- 7.2 °F deviation)

#### Reagent temperature

Keep between 10 °C - 30 °C (50 °F - 86 °F)

#### Sample pressure

By external overflow vessel

#### Sample flow rate

Fast loop sample supply required - minimal flow rate depends on application

#### Sample particulates

Maximum size 40 µm, < 0.1 g/l

### Utilities

#### Power

220 - 240 VAC, 2 A, 50 Hz

Max. power consumption: 120 VA

Other voltages available on request

#### Instrument air (purging)

Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air

#### Tap water

- Cleaning and/or dilution
- Cooling of the condenser

#### Drain

Atmospheric pressure, vented, min. Ø 64 mm

#### Earth connection

Dry and clean earth pole with low impedance (< 1 ohm) using an earth cable of > 2.5 mm²

### Reagents

#### Reagents

*Please check respective datasheets.*

#### Reagent containers (included)

To be placed outside cabinet

Containers come with torqueless screw caps.

#### Cleaning solution (recommended)

Tap water or specific chemical solution

### Mechanical data

#### Protection class

Analyzer cabinet: IP55

Touch screen/Industrial PC: IP65

#### Cabinet and materials, hinged part

Thermoform ABS

Door: plexiglass

#### Cabinet and materials, wall section

Galvanized steel, powder coated

#### Wetted materials

PE / PTFE / PP / PFA

#### Dimensions (H X W X D)

69 cm (27.2") x 46.5 cm (18.3") x 33 cm (13")

#### Total weight

25 kg (55 lbs.)

### Control and communication

#### User interface / controller

Industrial PC with 5.7" TFT colour user interface, compact flash memory

Backlit touchscreen, brightness adjustable

#### Data handling, logging and security

- Standard Ethernet 10 M (RJ45) NE 2000
- Communication ports supporting Ethernet connectivity to MODBUS TCP/IP
- Log files with 1,000 values/results are stored
- Easy export to spreadsheet files
- Sealed USB port for data or result graph download and program upload
- User interface with administrator access and menu keys activated/inactivated
- Data retention in case of power failure, initialization program for safe status after restart

#### Analogue outputs

Maximum 8, active 4 – 20 mA

Max. 500 Ohm load

#### Alarms (digital outputs)

- Malfunctioning alarm (potential free contact)
- Result alarm (potential free contact)

#### MODBUS TCP/IP, MODBUS-RS232 -RS485

Optional

### Options / add-on units

#### Sample digestion unit (built-in)

Sample pretreatment unit with hot acid digestion and reflux condenser

#### Sample preconditioning

**MicroSize®** self-cleaning microfiltration unit, various pore sizes available

#### Reagent level detection

Installed on reagent containers; alarms are generated by controller software

#### Multiple streams

**ModuPlex®** 2 or 3 streams (8 on demand)

### Certification

#### CE approval

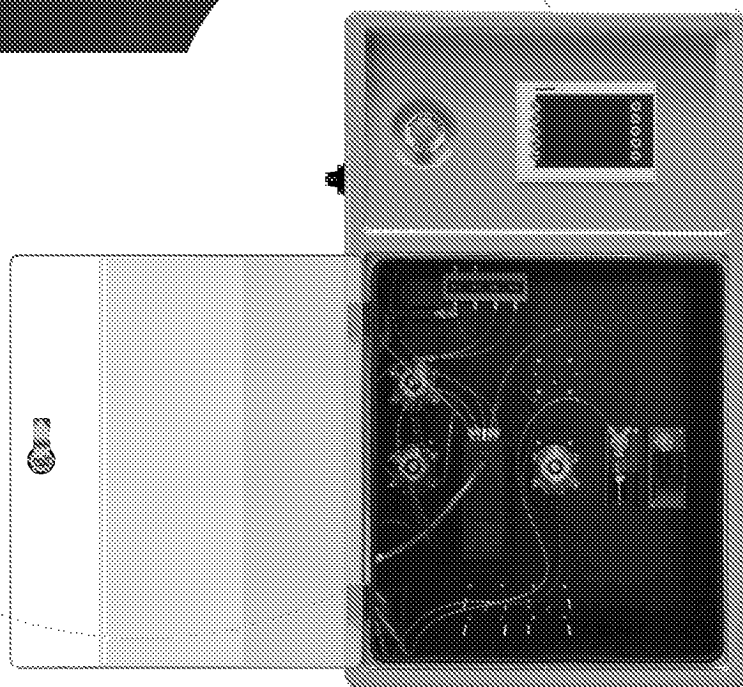
Certified to CE approval

#### Factory Acceptance Test (FAT)

At AppliTek NV, Belgium.

# coliLyzer

On-line Monitoring of *E. coli* and Total Coliforms  
in Drinking Water and Surface Water



**coliLyzer®** Automatic, on-line monitoring of  
target pathogen levels in water sources

- On-line monitoring of fecal coliforms and coliform groups in various water sources
- Convenient, automatic operation requiring no special analytical chemistry or microbiology skills
- Selection of rapid qualitative methods and quantitative methods
- Flexible analysis cycles of 24 h up to 1 every 3h
- Industry-standard enzyme indicators of coliforms
- Incorporated industrial panel PC with AppliTek controller software

Masters in Analytical Technology.

**AppliTek**

# On-line Monitoring of *E. coli* and Total Coliforms in Drinking Water and Surface Water

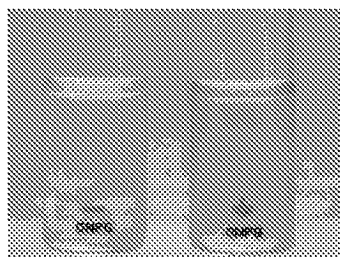
## Pathogen load of water

Waterborne illnesses as a result of *Escherichia coli* infections have become an emerging subject in the field of water quality management and public health. *E. coli* is a member of a group of organisms known as coliforms: common bacteria found in the digestive system of humans and animals. Permissible levels have been set for water sources by authorities and agencies worldwide, specifically for drinking water. Hence the importance of reliable, fast monitoring systems for qualification and quantification of coliforms cannot be underestimated.

## Principle of analysis

The analysis method of the **coliLyzer®** is based on two chemicals, ONPG (*ortho*-nitrophenyl- $\beta$ -D-galactopyranoside) and MUG (4-methyl-umbelliferyl- $\beta$ -D-glucuronide). These are used in the medium as substrates for two distinct reactions that are specific for total coliforms and *E. coli*. All coliform bacteria produce an enzyme  **$\beta$ -galactosidase** that reacts with ONPG to give the medium a yellow color. When growth of coliform bacteria occurs, the increasing concentration of the enzyme hydrolyzes more and more ONPG resulting in a pronounced color change of the water sample to yellow. *E. coli*, however, synthesizes a specific enzyme  **$\beta$ -glucuronidase** metabolizing MUG to methylumbelliferone and produce fluorescence which can be detected with UV light (365 nm).

Inside the **coliLyzer®**, the change in color as well as the degree of fluorescence is continuously measured by two spectrophotometers until a signal is detected.



## Technology basics

Contrary to automated laboratory systems, the **coliLyzer®** is a fully automatic on-line analyzer that can be used as an early warning system for detection and measurement of coliform organisms in water. The simultaneous use of two different substrates, ONPG and MUG, is a major breakthrough in the detection and quantification of coliforms since it allows to differentiate between total coliforms and *E. coli* specifically.

Water samples are taken from a fast loop of or any pipe close by the analyzer, injected in a sterile medium liquid containing the two substrates stored inside the analyzer. The bacteria that are presumably present in the sample are allowed to incubate. The change in color as well as the degree of fluorescence is continuously measured until either a reliable signal or a (programmable) threshold value is detected. This depends on the initial concentration of those bacteria and how long the incubation time will be:

Low initial concentration = long incubation and long detection time.

High initial concentration = short incubation and short detection time.

Sampling, analysis and reporting are automatic, which allows fast feedback on the microbial load in the water body. The **coliLyzer®** offers convenient and simplified operation requiring only basic skills in microbiology or analytical chemistry. Operators can focus on action plans if necessary and protect their water source from immediate threat of waterborne pathogens.

### Analytical specifications

Parameters	Heat resistant (fecal) coliforms / / <i>E. coli</i> / Total coliforms
Sampling volume	100 mL
Sampling frequency	3 - 24 hours
Analysis cycle	Less than 24 hours
Measurement range	Depending on target pathogen concentration
Detection limit	1 / 100 mL - 10 x 10 <sup>11</sup> / 100 mL
Incubation temperature	36.5 °C (coliform bacteria) or 44.5 °C (fecal coliform)
Reagents	1 bottle of culture solution / sample



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**From:** Calley, Brian (GOV)  
**Sent:** Thursday, January 28, 2016 3:12 PM  
**To:** Sachs, Tori (GOV)  
**Cc:** Saunders, Kelli (GOV)  
**Subject:** FW: CNN coverage Flint water crisis  
**Attachments:** ColiLyzer-EN.PDF; AppliTrace-EN\_Leaflet.pdf; TitriLyzer-EN.PDF

**Importance:** High

Forwarding through you as it appears this individual is working with the city

---

**From:** Bhupen Patel [mailto:bpatel@pimcgroup.com]  
**Sent:** Thursday, January 28, 2016 10:57 AM  
**To:** Benzie, Richard (DEQ) <BENZIER@michigan.gov>; Graham, Lois (DEQ) <GRAHAML@michigan.gov>  
**Cc:** Calley, Brian (GOV) <Brian.Calley@michigan.gov>  
**Subject:** FW: CNN coverage Flint water crisis  
**Importance:** High

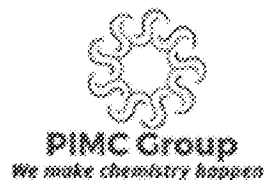
My recommendation is to conduct corrosivity tests through out the distribution system for City of Flint.

I have worked at American Water as a water quality supervisor and work with lake Michigan water as source water at Gary, and Ogdon dunes. At present, I am independent water treatment process professional.

Please let me know if I can be of any help. Thank you.

All the Best!

**Bhupen Patel** M.Sc. MS, MBA |Process Sales – North America | Process Analytics



**AppliTek**



2388 Providence Dr | Greenwood | IN | 46143  
Mobile +1 317 625 4216 | Customer Service +1 317 530 5573  
E-mail: [b.patel@applitek.com](mailto:b.patel@applitek.com) | [bpatel@pimcgroup.com](mailto:bpatel@pimcgroup.com)  
[www.applitek.com](http://www.applitek.com) | [www.pimcgroup.com](http://www.pimcgroup.com)

Come join us at

**WITtec April 11-13, 2016 Wyndham Indianapolis West**

---

**From:** Bhupen Patel [<mailto:bpatel@pimcgroup.com>]

**Sent:** Thursday, January 21, 2016 12:10 PM

**To:** 'bwright@cityofflint.com' <[bwright@cityofflint.com](mailto:bwright@cityofflint.com)>; 'Bhupen Patel' <[b.patel@applitek.com](mailto:b.patel@applitek.com)>

**Cc:** 'David Laurier' <[D.Laurier@applitek.com](mailto:D.Laurier@applitek.com)>; 'Chris Welsh' <[c.welsh@applitek.com](mailto:c.welsh@applitek.com)>; 'mfucich@fctechusa.com' <[mfucich@fctechusa.com](mailto:mfucich@fctechusa.com)>

**Subject:** FW: CNN coverage Flint water crisis

**Importance:** High

Dear Mr. Wright,

Thank you for taking my call this morning. AppliTek offers cutting-edge technologies in real time water quality monitoring for source water, treatment processes, and finished water. I have attached leaflets of our ColiLyzer and AppliTrace. AppliTrace is our trace metal analyzer for most toxic metals including lead and copper. ColiLyzer can check the effective disinfection in the finish water as well settled water before disinfection. Both of these analyzers can be deployed in the distribution system to monitor the drinking water quality to check any infiltration or leakage cross contamination.

Additionally, I would like to offer the TitrLyzer for alkalinity and hardness online analysis. In my experience, when the source water has relatively low alkalinity, the finish water it self become more aggressively corrosive to lead and copper plumbing. IF we measure finish water alkalinity at the plant add soda ash based on the alkalinity readings and stabilize the water, the lead and copper situation can be some what brought under control. AppliTrace analyzers can also be deployed at the river water intakes to measure lead and copper in the source water.

As I stated, in my telephone call I will be at the AWWA Lansing meeting during the first week of February. We can schedule a meeting then, or We can do this next week. I understand the urgency and I would like to support in your efforts to make good water.

All the best!

Bhupen Patel M.Sc. MS, MBA | Process Sales – North America | Process Analytics

**AppliTek**

AppliTek USA

2388 Providence Dr | Greenwood | IN | 46143

Mobile +1 317 625 4216 | Customer Service +1 317 530 5573

E-mail: [b.patel@applitek.com](mailto:b.patel@applitek.com) | [www.applitek.com](http://www.applitek.com) | [bpatel@pimcgroup.com](mailto:bpatel@pimcgroup.com)

**WITtec April 11-13, 2016 Wyndham Indianapolis West**



---

**From:** Bhupen Patel [<mailto:b.patel@applitek.com>]  
**Sent:** Thursday, January 21, 2016 10:49 AM  
**To:** Bhupen Patel <[bpatel@pimcgroup.com](mailto:bpatel@pimcgroup.com)>  
**Subject:** FW: CNN coverage Flint water crisis  
**Importance:** High

---

**From:** David Laurier  
**Sent:** donderdag 21 januari 2016 5:41  
**To:** 'edwardsm@vt.edu'  
**Cc:** 'knocke@vt.edu'; 'Mark Fucich ([mfucich@fctechusa.com](mailto:mfucich@fctechusa.com))'; Bhupen Patel; Chris Du Bois; Chris Welsh  
**Subject:** CNN coverage Flint water crisis  
**Importance:** High

Dear Prof. Dr. Edwards,  
Dear Ms. Dong  
Dear Ms. Dai

I'm currently on an Asian tour to visit our recently installed river monitoring stations.

Your interview on CNN today about the Flint drinking water issues, caught my attention.  
I'm currently in Thailand visiting some stations.

Just wanted to inform you that we are world-leader in installing early warning monitoring systems, with hundreds of references in China (mainly trace metals, toxicity and COD), Middle East, Latin America. Currently, we are bidding on the Ganga (India) river monitoring project.

(Your Chinese co-works can egally visit our Chinese website [www.applitek-china.com](http://www.applitek-china.com) and follow us on wechat channel. My personal wechat is luodawei8888)

We have on-line analyzers that detect a PPT/PPB/PPM levels Pb & Cu, and virtually all trace metals of importance, we also manufacture on-line

ATP analyzers, on-line e-coli/fecal coliform/total coliform/total bacteriae analyzers, and a broadband toxicity analyzer AppliTOX II using (discontinuous) *Vibrio fischeri*.

We have 2 branches in USA, Indianapolis and baton rouge, LA.

If you or your researchers are interested in meeting with us, let us know. We are at your disposal being part of your holistic approach to water Quality monitoring.

All the best and good luck at Flint.

David Laurier  
CEO



**David Laurier, MBA**  
President & CEO - Vice Chairman of the Board

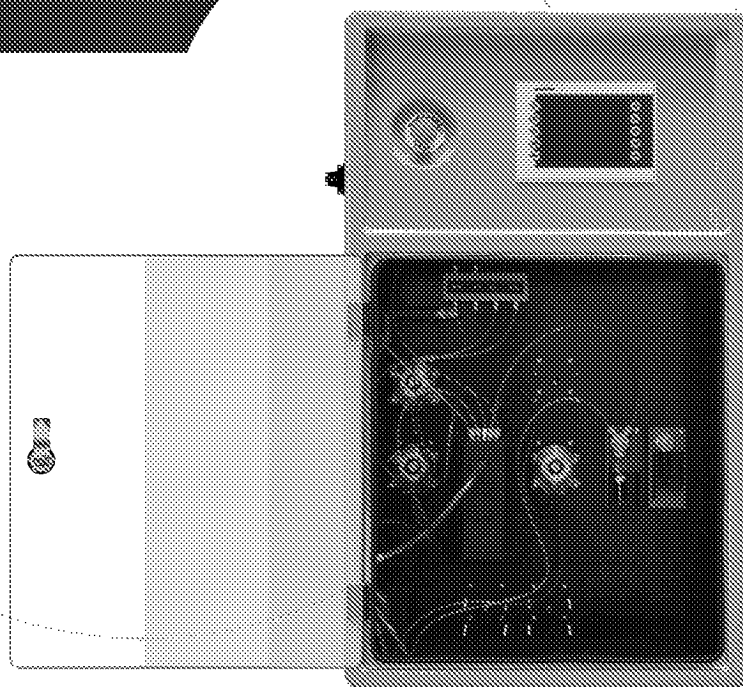
Tel +32 9 386 34 02 | Fax +32 9 386 72 97 | [d.laurier@applitek.com](mailto:d.laurier@applitek.com) | Skype david-laurier  
USA Toll free Tel : +1 (866) 417 5887 | Personal US conference call room: +1 (605) 715 4920  
AppliTek NV/SA | Venecoweg 19 | B-9810 Nazareth | Belgium | Europe  
Visit us on [www.applitek.com](http://www.applitek.com) | <https://www.facebook.com/AppliTek>

Disclaimer: <http://www.applitek.be/disclaimer.htm>

☼ Please consider the environment and our planet before printing this e-mail.

# coliLyzer

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in Drinking Water and Surface Water



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Masters in Analytical Technology.

**AppliTek**

# On-line Monitoring of *E. coli* and Total Coliforms in Drinking Water and Surface Water

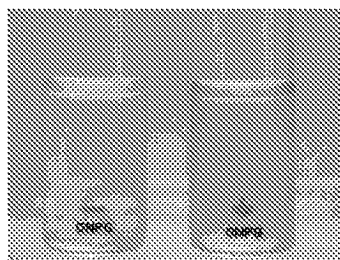
## Pathogen load of water

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### Analytical specifications

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Measurement range	Depending on target pathogen concentration
Detection limit	1 / 100 mL - 10 x 10 <sup>11</sup> / 100 mL
Incubation temperature	36.5 °C (coliform bacteria) or 44.5 °C (fecal coliform)
Reagents	1 bottle of culture solution / sample

---

**From:** Stoken, Laura (GOV)  
**Sent:** Thursday, January 28, 2016 3:27 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company

For your determination

---

**From:** John Swon [<mailto:jswon@silverlng.com>]  
**Sent:** Thursday, January 28, 2016 3:13 PM  
**To:** Hall, Jean (GOV) <[hallj16@michigan.gov](mailto:hallj16@michigan.gov)>  
**Subject:** SilverLiningR for MI

Hi Jean,

I am hoping you can point me in the right direction? Originally I thought Angela Ayers would be a good person to start with but perhaps it's someone else? Anyway, there's obviously a tremendous amount of national press surrounding the drinking water problems in Flint. My team and I from our New Jersey and Boston offices have casually discussed, for the last couple weeks, how we could quite easily, quickly, cost effectively and permanently repair damaged water pipes on behalf of the State of Michigan, Governor Snyder and certainly the people of Flint. My company, SilverLining®, features a patented, one of a kind pipelining technology and methodical field expertise to repair and rehabilitate compromised pipe (like the ones in Flint) better than new without digging, disruption and the cost associated with brand new pipe.

Who might I be able to speak with to further discuss what would be a phenomenal solution to a very challenging problem?

Thanks in advance for your assistance.

John

**John Swon**  
**Executive Vice President**

**SilverLining**

Pipelining Technology

908.367.3936 office

908.477.3077 cell

[www.silverlng.com](http://www.silverlng.com)

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**From:** Stoken, Laura (GOV)  
**Sent:** Thursday, January 28, 2016 4:55 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Company - FLINT, MI WATER SOLUTION 4:03 PM & A Way To Pay The Bill!!!  
**Attachments:** jeffybond.doc; tshirtxy.jpg; OBAMACARE\_REPLACEMENT.pdf

**From:** Jeffrey Cutler [mailto:[eltaxcollector@gmail.com](mailto:eltaxcollector@gmail.com)]  
**Sent:** Thursday, January 28, 2016 4:33 PM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** FLINT, MI WATER SOLUTION 4:03 PM & A Way To Pay The Bill!!!

Dear Gov. Snyder;

My solution is trivial...Create a combination **Water Meter/Analyzer/Filter** and install them on each property. This can be created **from off the shelf hardware right now!!!** It defines the problem to a fixed cost at each property, with essentially a fixed cost installation.

Pay for it via payment system called a jeffybond (see attached). I applied for a copyright on the term a couple of weeks ago.

**THIS WOULD COST THE STATE NOTHING!!!**

Jeffrey Cutler  
East Lampeter Township Tax Collector

I am a Drexel University Graduate, AND TRYING TO SAVE THE CONSTITUTION!!

[https://www.youtube.com/watch?v=mgCle8F\\_zUk](https://www.youtube.com/watch?v=mgCle8F_zUk)

<https://search.yahoo.com/yhs/search?p=youtube+tax+collector+obamacare&ei>

<http://www.americanfreedomlawcenter.org/case/jeffrey-cutler-v-u-s-dept-of-health-human-services/>

<http://thenewrevere.com/2015/07/exclusive-consensus-is-the-new-word-for-censorship/>

[stokenl@michigan.gov](mailto:stokenl@michigan.gov)



---

**From:** BrownleeJ@michigan.gov  
**Sent:** Thursday, February 18, 2016 9:27 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: Vendor inquiries (1/2)  
**Attachments:** FW Vendors Spreadsheet.xlsx; ATT00001.htm; FW 1.zip

Inquiry Number	Name
1	Bob Lube
2	Dr. Julius J. Rim
3	Marc Zhao
4	Dr. Tammy Born
5	Henry Clark
6	David Loveday
7	Mark Zuckerman
8	Mike Wahlfield
9	Matt Kaye
10	Zijuan Liu, Ph.D.
11	Suzanne Jamail
12	Gopal N. Hegde/John Henderson
13	Dan Hutchins
14	Camilla M. Eng
15	John Bidigare
16	Monique Rene Coates
17	Birgit Strobel
18	Heather Jepsen
19	John Lyman
20	Jeff Tolman
21	Alan M. Weiss
22	John Ballor
23	Richard Kreidler
24	Val Vail-Shirey
25	Katie A. Jones
26	John Herrick
27	Steven Draper
28	Greg Winike
29	Mike Armstrong
30	Kina Kocsis
31	Andy Andersen
32	Claudia Ordonio
33	Ed Kent
34	Candi Layman
35	Mike Compagnoni
36	Cody Beausejour
37	Bethany Thayer
38	Chase Bonhag
39	George W. Jackson, Jr.
40	Derek Sova
41	Eric Brown
42	Jack Lee
43	Ryan Mitchell
44	Dennis Cawthorne
45	David Laurier
46	John Swon

47

48

49

50

Service

Patent pending technology to eliminate harmful water contaminants

Lead trapping water filters

Brita Faucet Water Filter System

Chelation therapy removes lead (heavy metals) from the body, Offered to help in Flint. She said she is willing to train, tea

Clean water filtration/energy production

Certified water treatment products

A counter-top filtration system for use to protect from lead poisoning at the kitchen and / or bathroom faucets

Well Drilling advice

Lead removing filters

Lead studies and research

Psychological help for families

Water treatment expertise

Water treatment program to remove metals

Plastic piping

Water Main Replacements

Paragon Water Systems - Countertop Filtration System

Water dispenser for potable water with integrated filters

Water from air machines

Portable water purification

Water purification system

Nano-Technology Water Purification Filter

Waste to Energy Plasma Technology

Corrosion/hard water control system

Integrity monitoring system

Bottled Water Drive

Temporary Bill Solution

Non-profit organization who could volunteer their services – specifically referring to plumbing in Flint schools

Have capability to remove contaminated water w/ no capital expenditure to city-could begin process w/ 2 weeks

Would like to share info in effort to help Flint water situation

Recommending Anway eSpring Water Treatment Systems

PQ® Soluble Silicates: For Protection of Water Systems From Corrosion

Personal water bottles that filter out lead and heavy metals, viruses, bacteria and much more

Ph.D./Hydrologist who has done a great deal of consulting work for New England municipalities.

EPA Superfund Site

CGI with DCMC disaster recovery

Independent research on costs to build a water distillery

Nutrition resources, meal and snack planning, nutrition assessment and medical nutrition therapy in the treatment of ad

ANDalyze water lead testing

Real estate development

Long-term solution advice to deal with those who may have been affected

Pipe reconstruction/installation

Mobile c unit capable of cleaning 1.2 million gallons of water a day

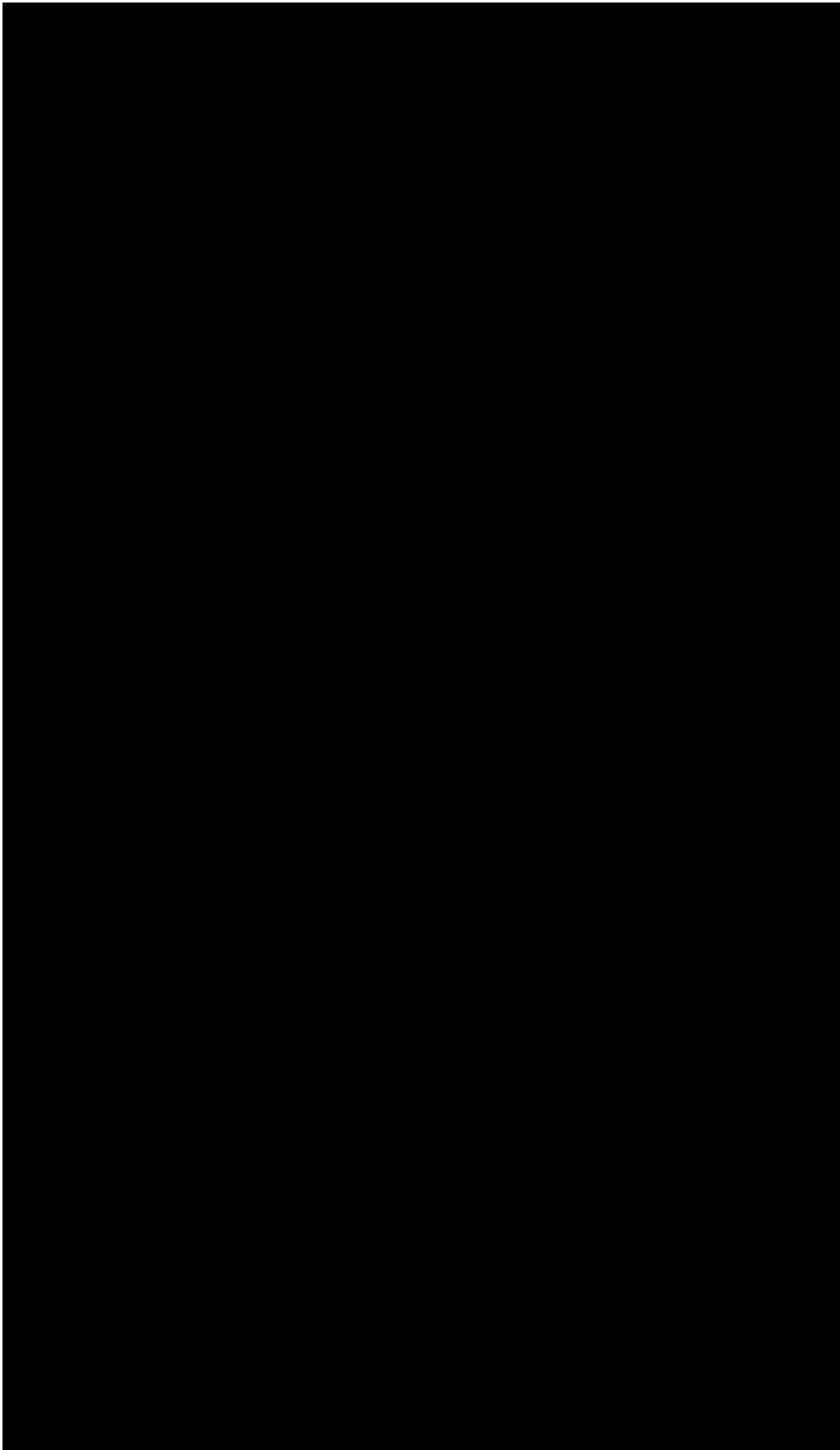
Emergency Response Trailer from Pure Box Water

Japanese patented water cleansing technology that is capable of cleaning/removing large amounts of iron, lead, and bac

On-line analyzers that detect a PPT/PPB/PPM levels Pb & Cu, and virtually all trace metals of importance

A patented, one of a kind pipelining technology and methodical field expertise to repair and rehabilitate compromised pi







---

**From:** BrownleeJ@michigan.gov  
**Sent:** Thursday, February 18, 2016 9:28 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: 2/3  
**Attachments:** FW 3 (2).zip; ATT00001.htm; FW 4.zip; ATT00002.htm

Sent from my iPhone

Begin forwarded message:

From: "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
To: "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Subject: FW: 2/3

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Sachs, Tori (GOV)  
Sent: Tuesday, February 09, 2016 7:37 PM  
To: Lord, Daniel (DNR); Weise, Kevin (MSP)  
Subject: 2/3

The last email was too big.



**INDUSTRIAL  
CHEMICALS  
DIVISION**



**The PQ Corporation**

**THE PQ CORPORATION**

**CORPORATE HEADQUARTERS**

PO Box 840  
Valley Forge, PA 19482-0840  
Phone: 800-944-7411

**IN CANADA**

National Silicates  
Phone: 416-255-7771

**IN MEXICO**

Silicates y Derivados, S.A.  
Phone: 011-52-55-5227-6801

**IN EUROPE**

PQ Europe  
Phone: 31-33-450-9030

**IN AUSTRALIA**

PQ Australia Pty. Ltd.  
Phone: 61-3-9708-9200

**IN TAIWAN**

PQ Silicates Ltd.  
Phone: 886-2-2383-0515

**Bulletin 37-3**

# **PQ® Soluble Silicates: For Protection of Water Systems From Corrosion**

## **INTRODUCTION**

Soluble silicates are economical, effective, and environmentally responsible chemicals which have been used for more than 70 years to protect metals from the corrosive effects of water.<sup>1</sup> They are classified as corrosion inhibitors because they can deposit protective films onto various metal surfaces, isolating the metal from any further corrosive attack, and because they raise water pH which can make it less corrosive to metals. Silicates do not contribute zinc or phosphorous to treated water.

Laboratory and field experience has shown that silicate corrosion inhibitors are effective in many different types of water. Protection is provided in both acidic and alkaline water. In harder water slightly more silicate is needed to achieve the same degree of corrosion inhibition, since some of the injected silica may react with hardness ions before it has a chance to bond onto metal surfaces

PQ® silicates have been successfully used for corrosion control in water supplies of municipalities, industrial plants, oil refineries, textile mills, private residences, apartment buildings, and office buildings. Their corrosion inhibition properties also make them key ingredients in such products as automobile antifreeze and laundry detergents.

## **WHAT ARE SOLUBLE SILICATES?**

PQ Corporation manufactures sodium and potassium silicates. These soluble silicates are produced by fusing high purity silica sand and sodium carbonate (or potassium carbonate) at temperatures of 1000 - 1500°C. The resulting product is an amorphous glass that can be dissolved in water to produce silicate solutions, sometimes referred to as "waterglass." The silica in a silicate solution is present as both monomeric and polymeric anionic species (Figure 1), that exist in equilibrium with each other.<sup>2</sup>

Ratio and silicate concentration are two important factors that influence what species are present in solution. At concentrations typical for corrosion control, the silica monomer predominates.<sup>3</sup>

The proportion of silica to alkali in a sodium silicate is expressed as the weight ratio  $\text{SiO}_2/\text{Na}_2\text{O}$ . It is one of the main characteristics that influences product properties and distinguishes one product from another.

PQ manufactures liquid sodium silicates which range in ratio from 1.60 to 3.22. Typically, 2.00 or 3.22 ratio sodium silicate solutions, containing 25 to 30%  $\text{SiO}_2$ , are used for municipal water treatment.

**INDUSTRIAL  
CHEMICALS  
DIVISION**



**THE PQ CORPORATION**

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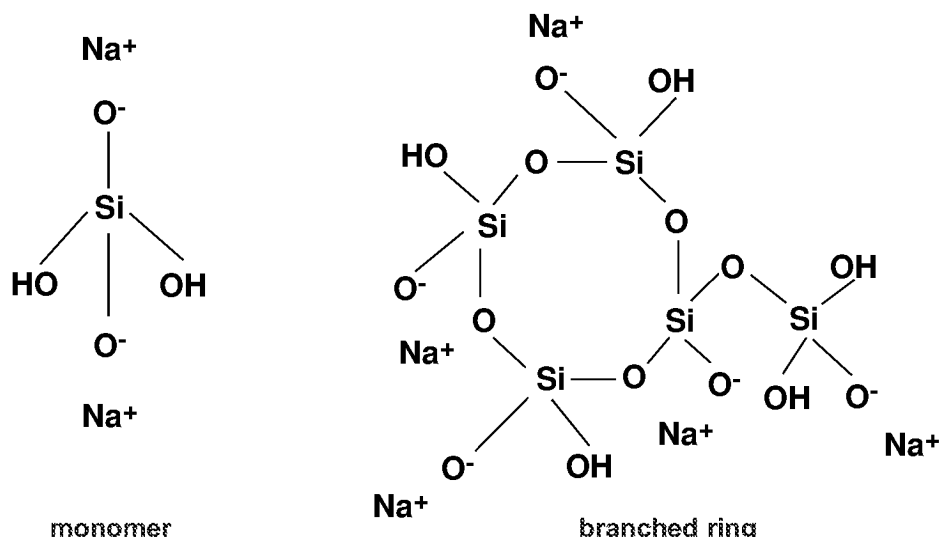
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**FIGURE 1. TWO SILICA STRUCTURES FOUND IN  
SODIUM SILICATE SOLUTIONS**



**Terminology: Silica vs. Silicate**

The term "silica" refers to the compound silicon dioxide ( $\text{SiO}_2$ ). Water is typically analyzed for silica as part of normal water quality analysis procedures. Silica levels are usually reported as mg  $\text{SiO}_2/\text{L}$ .

"Silicate" is a generic term for compounds that contain silicon, oxygen, and one or more metals. They can be naturally occurring or synthetic. As an example, PQ's synthetic sodium silicate compounds can be represented by the generalized formula  $\text{Na}_2\text{O} \cdot x\text{SiO}_2$ , where "x" varies from 1.60 to 3.22 for commercial products.

Naturally occurring silicate minerals make up nearly 90% of the earth's crust.<sup>4</sup> Dissolved silica is a minor but ubiquitous constituent of the hydrosphere.<sup>5</sup>

Commercial soluble silicates have a higher degree of polymerized silica species than natural dissolved silica because of higher concentrations; however, when diluted they depolymerize to molecular species that are indistinguishable from natural dissolved silica.<sup>6</sup>

**PHYSIOLOGICAL AND ENVIRONMENTAL  
EFFECTS OF SODIUM SILICATE**

Sodium silicate adds silicate anions, together with sodium and hydroxyl ions, to water.

Silica is found to some extent in all natural waters and is believed to be ecologically harmless. The charged, polymeric nature of the silica found in synthetic silicate solutions is responsible for its reaction with metals and corrosion inhibition properties.

The sodium content of water will increase slightly with sodium silicate addition. This issue has been raised as a concern in some instances. At the highest dosages recommended for potable water treatment (24 mg  $\text{SiO}_2/\text{L}$ ), PQ's N® sodium silicate will contribute less than 5.6 mg Na/L to the water.

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Furthermore, when using N silicate at normal maintenance dosages of 4-12 mg  $\text{SiO}_2/\text{L}$ , the sodium contribution is 0.9-2.8 mg  $\text{Na}/\text{L}$ , respectively. When other sodium silicates are used, the sodium contribution will be different depending on the weight ratio of  $\text{SiO}_2/\text{Na}_2\text{O}$ . If no sodium addition is tolerable, potassium silicates offer an alternative.

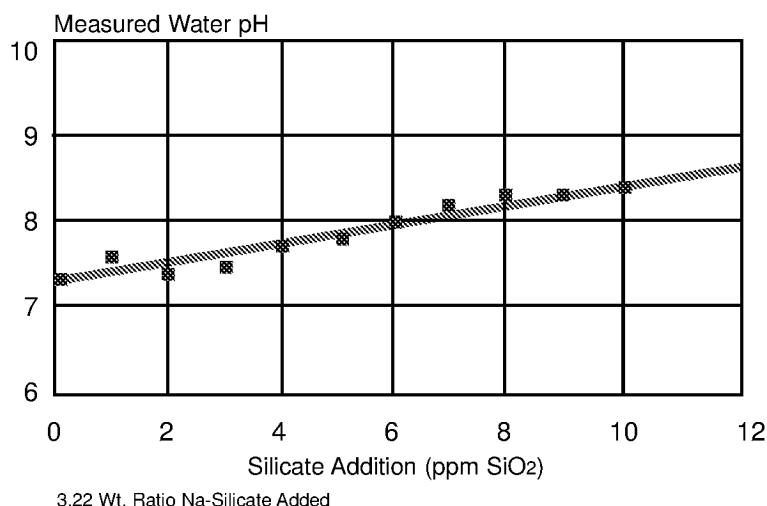
Neither sodium nor potassium silicate corrosion inhibitors contribute phosphorus or metals such as zinc to the ecosystem. These are concerns with other corrosion inhibitors, especially phosphorus-based types.

### pH EFFECTS

Sodium silicates are alkaline chemicals. Treating water at typical levels of 4-24 mg  $\text{SiO}_2/\text{L}$  may raise the water pH anywhere from 0.1 to 2.0 pH units or more. The actual pH increase will depend on overall water quality and silicate dosage. See Figure 2 for example. Increases in pH will generally help minimize corrosion and will provide a synergistic effect along with deposition of monomolecular silica film.

**FIGURE 2. pH RESPONSE WITH SILICATE ADDITION**

LAKE TAHOE WATER pH RESPONSE TO SODIUM SILICATE ADDITION



### APPROVALS FOR USE

The use of sodium silicates for the control of corrosion in municipal water systems is approved by the American Water Works Association and the American National Standards Institute (refer to ANSI/AWWA Standard B404). Sodium silicate also has Food and Drug Administration (FDA) unpublished "generally recognized as safe" (GRAS) status as a corrosion preventative in water (at levels below 100 mg/L).<sup>7</sup>

The U.S. Environmental Protection Agency (EPA) recognizes that silicate inhibitors may be effective in controlling corrosion of lead and copper in potable water systems.<sup>8</sup>

### THE NATURE OF SILICATE CORROSION INHIBITION

Studies have shown that soluble silicates are reactive with cationic metals and metal surfaces.<sup>9</sup> This phenomenon is the basis by which silicates inhibit corrosion and is illustrated at the top of the following page.<sup>10</sup>

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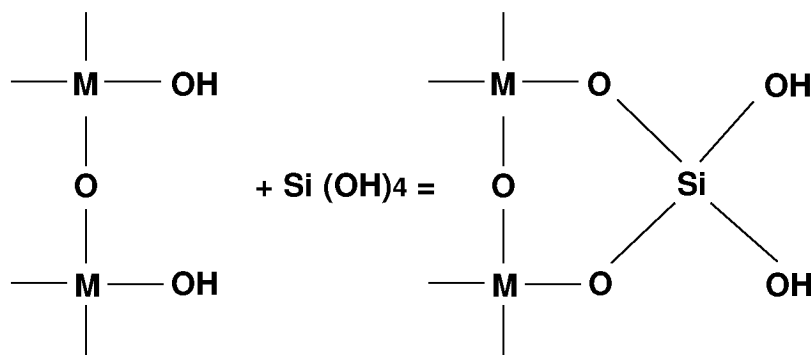
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**FIGURE 3. DEPOSITION OF SILICA ON METAL SURFACE**



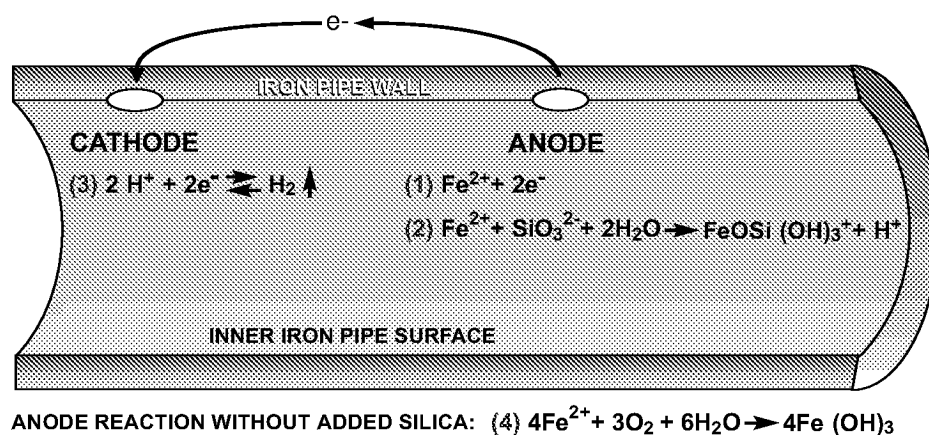
Monomeric and polymeric silica, introduced into a water distribution system as sodium silicate solution, is carried by flowing water to all parts of the distribution system. At the dilution levels used for water treatment, the majority of the silica depolymerizes to a reactive monomer form. The monomeric silica, which can be represented by  $(\text{SiO}_3)^{2-}$ , is adsorbed onto metal pipe surfaces at anodic areas, forming a thin monomolecular film on the interior of the pipe. This prevents any further corrosive reaction at the anode.

Corrosion will be inhibited when an anodic reaction of the type proposed between ferrous iron and silica (shown as equation (2) in Figure 4) occurs in place of the reaction which forms ferric hydroxide (shown as equation (4) in Figure 4). Protective films can be formed by such a reaction.

Microscopic and x-ray examination of the film formed at the metal surface show two layers, with most of the silica in the surface layer adjacent to the water. When the hydrous metal oxide film has been covered with a silica film, silica deposition stops.<sup>11</sup> The film does not build on itself, and therefore will not form excessive scale. The film is an electrical insulator and blocks the electrochemical reactions of corrosion, yet it is thin enough that it does not obstruct water flow.<sup>12</sup>

Corrosion protection with PQ sodium silicates can be achieved by modifying the  $\text{SiO}_2$  content of the water. Therefore the key water property is  $\text{SiO}_2$  con-

**FIGURE 4. POSTULATED ELECTROCHEMICAL REACTIONS OF IRON IN WATER, WITH AND WITHOUT ADDED SILICA**





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tent, not pH or calcium level, as in other types of corrosion control practices. Alkalinity, pH, and water hardness may influence the effectiveness of silicate treatment.

In many cases, natural  $\text{SiO}_2$  found in water probably has already "reacted" (i.e., adsorbed) with other metals in the water and may not be effective in reacting with metal pipes. Therefore, a fresh source of "reactive"  $\text{SiO}_2$  is needed (as from soluble silicate solutions).

**LENGTH OF CARRY**

When silicate treatment is first started, the system near the point of application is coated immediately; then the film continues to form at greater distances. Eventually, with continued feeding and sufficient water flow rate, the treatment becomes effective throughout the entire system.

Once the film has been created, the protection is maintained as long as silicate treatment is continued; if stopped, the protection is gradually lost. If damaged, the film is self healing, as long as the silicate feed is continued.

**METALS PROTECTED**

Silicate treatment is effective in controlling corrosion of many different metals and in systems made up of a variety of metals.

**METALS THAT HAVE BEEN SUCCESSFULLY PROTECTED  
BY TREATMENT OF SOLUBLE SILICATES:**

- |                                   |                    |
|-----------------------------------|--------------------|
| ■ Lead                            | ■ Galvanized Steel |
| ■ Copper                          | ■ Bronze           |
| ■ Cast Iron and<br>Ferrous Metals | ■ Red Brass        |
| ■ Steel                           | ■ Yellow Brass     |
|                                   | ■ Nickel Alloys    |

**PROTECTION OF CEMENTICIOUS MATERIALS**

Addition of silicate to water systems can protect cementitious materials from long term deterioration. The silicate reacts with available calcium to form insoluble calcium-silicate compounds. Studies have shown that silicate treatment may reduce the breakdown of asbestos-cement surfaces, thus prolonging the life of the material and minimizing the release of fibril asbestos.<sup>13</sup>

**COST OF TREATMENT**

The cost for silicate treatment will vary, depending on the amount of silicate being fed into the water system, and the quantities purchased.

**A GENERAL EQUATION FOR DETERMINING THE COST OF  
SILICATE TREATMENT IS:**

$$\frac{[8.34] [a] [b]}{[c]} = \frac{\$}{\text{MG water}}$$

a = desired  $\text{SiO}_2$  dose (in mg/L or ppm)  
b = \$/pound silicate solution  
c = wt. %  $\text{SiO}_2$  in silicate (decimal format)

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## TESTING THE EFFECTIVENESS OF SILICATE TREATMENT

The effectiveness of silicate corrosion inhibitors can be evaluated in a number of ways. Options include:

1. Monitoring levels of dissolved metals (e.g., Fe, Cu, Pb) in water samples before and after treatment.
2. Conducting pipe-loop studies based on U.S. Army Construction Engineering Research Laboratory (USA-CERL) and/or American Water Works Association Research Foundation (AWWARF) procedures.
3. Conducting coupon testing based on ASTM Test Method D-2688, "Corrosivity of Water in the Absence of Heat Transfer."

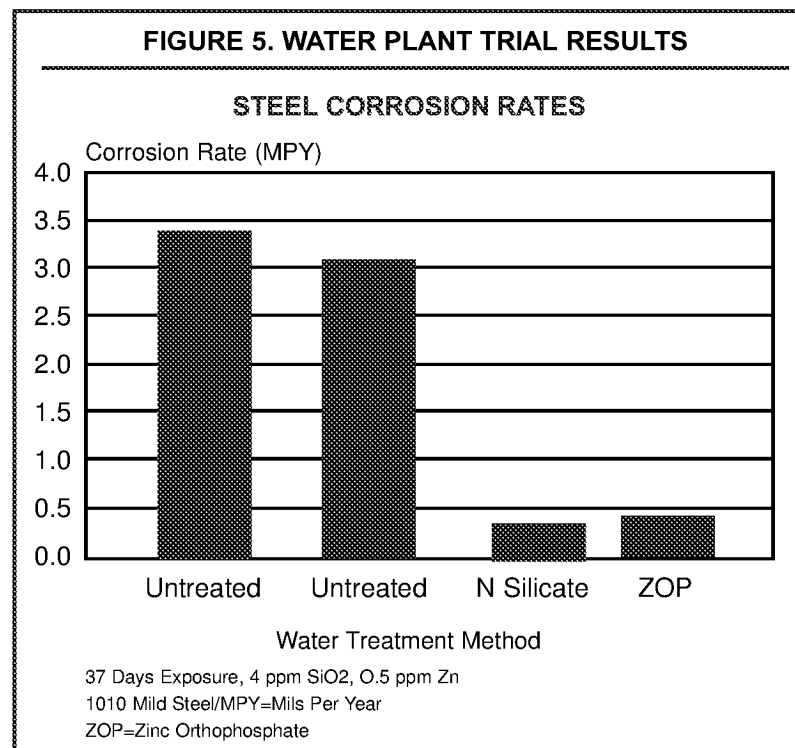
Results from a coupon test are presented in Figure 5. The water source was a surface water in southern California. The treatment levels of silicate and zinc orthophosphate used were cost equivalent.

These results are valid for the specific water tested and actual test conditions. The effectiveness of silicates on other waters may vary.

Current theory postulates that the presence of some corrosion product on the metal surface will enhance the effectiveness of the silicates since the reaction is believed to be between silica species and cationic metals (Figure 4). It is therefore recommended that coupon specimens and pipe loops be exposed to untreated water for a "conditioning" period prior to passivation. This practice will also be more representative of conditions that exist in actual water systems where corrosion has already occurred.

During lab or pilot testing, as in actual field use, a relatively high passivation dose of  $\text{SiO}_2$  is required initially for at least 30 days in order to establish the protective film on metal surfaces.

PQ technical service personnel are available to assist in evaluations of silicate corrosion inhibitors.



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**SUGGESTED PQ SILICATES FOR MUNICIPAL WATER TREATMENT**

Either PQ's N® or D® sodium silicate solutions can be used for corrosion control. The choice will depend on water quality and operator preference. Since D silicate is slightly more alkaline than N, it may be preferred in lower pH waters (e.g., water with pH below 6.0).

**TYPICAL PROPERTIES OF PQ SODIUM SILICATES**

PQ Product Name	N®	D®
Wt. Ratio (SiO <sub>2</sub> /Na <sub>2</sub> O)	3.22	2.00
%Na <sub>2</sub> O	8.9	14.7
%SiO <sub>2</sub>	28.7	29.4
Density @20°C (°Be)	41.0	50.5
(lb./gal.)	11.6	12.8
(g/cm <sup>3</sup> )	1.38	1.53
pH	11.3	12.7
Viscosity @20°C (cps)	180	400

**OTHER SILICATES**

In addition to solutions, PQ offers silicates in powder and glass form. The products (e.g., SS® or METSO®) can be mixed with other inhibitors to produce blended products.

**SILICATE DOSAGES**

Although there is natural silica (SiO<sub>2</sub>) in many waters, it may or may not have any inhibiting effect and is generally not considered in determining the dosage of the silicate treatment.

**PASSIVATION DOSAGE**

Normally, relatively high dosages of silicate are required during the first 30 to 60 days of treatment in order to form the initial protective coating. This initial silicate dosage is referred to as a passivation dosage and should be 24 mg/L above the background silica level.

The actual amount of time required to establish the initial coating will depend on the amount of silicate injected, water quality, water flow rates, and system length.

**MAINTENANCE DOSAGE**

After the first 30 to 60 days of treatment, or once film formation has been verified (i.e., by SiO<sub>2</sub> balance), the dosage can be reduced to a maintenance dose. It is advisable to reduce the silica dose incrementally, for example by lowering it to 12 mg SiO<sub>2</sub>/L for a period of time (e.g., 30 days), then 8 mg SiO<sub>2</sub>/L, and possibly even down to 4 mg/L. Silica balances should be done over the system as the dosage is decreased in order to verify that the protective film remains intact.

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## CALCULATING SILICATE DOSAGES

It is important to remember that commercial sodium silicate solutions consist of various proportions of silica (expressed as weight percent  $\text{SiO}_2$ ), alkali (expressed as  $\text{Na}_2\text{O}$ ), and water. The required silicate injection is based on the % $\text{SiO}_2$  in the silicate, the water flow rate through the system, and the desired incremental  $\text{SiO}_2$  level.

The following general equation can be used to determine silicate solution feed rates in gallons per day:

$$\frac{[8.34] [a] [b]}{[c] [d]} = \frac{\text{gallons silicate solution}}{\text{day}}$$

a = water flow rate (MGD)

b = desired  $\text{SiO}_2$  dose (mg/L or ppm)

c = wt. % $\text{SiO}_2$  in silicate (decimal format)

d = density of silicate (lb./gal.)

Example:

a = 2MGD

b = 24 mg  $\text{SiO}_2$ /L

c = 0.287 (wt. % $\text{SiO}_2$ )

d = 11.6 lb./gal.

$$\frac{[8.34] [2] [24]}{[0.287] [11.6]} = \frac{120.2 \text{ gal. silicate solution}}{\text{day}}$$

Alternatively, the following more specific relationships can be used:

### Using N® Silicate

To obtain: 1 mg  $\text{SiO}_2$ /L

Inject: 2.50 gal. N® per MG Water

For example, to get an incremental dosage of 8 mg  $\text{SiO}_2$ /L into a water stream flowing at 10 million gallons per day, 200 gallons per day N silicate must be injected ( $2.5 \times 8 \times 10 = 200$ ).

### Using D® Silicate

To obtain: 1 mg  $\text{SiO}_2$ /L

Inject: 2.25 gal. D® per MG Water

For example, to get an incremental dosage of 8 mg  $\text{SiO}_2$ /L into a water stream flowing at 0.5 million gallons per day, 9 gallons per day D silicate must be injected ( $2.25 \times 8 \times 0.5 = 9$ ).

In situations with low water flow rates it may be necessary to dilute the sodium silicate solution in order to get feed rates within the operating range of typical metering pumps.



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## **DETERMINING WHEN A PROTECTIVE FILM HAS BEEN FORMED IN A DISTRIBUTION SYSTEM BY SILICA BALANCE**

One way to monitor formation of the protective silica film is to do a silica ( $\text{SiO}_2$ ) balance around the distribution system. This involves first determining the normal background level of  $\text{SiO}_2$  in the water to be treated, and monitoring it periodically to make sure any changes are recognized.

The silicate treatment will involve introducing a known incremental amount of  $\text{SiO}_2$  (e.g., 24 mg/L). Once treatment begins, water samples at strategic end points of the distribution system are periodically checked for  $\text{SiO}_2$ . Once the incremental level of  $\text{SiO}_2$  at the ends of the distribution system matches the amount being introduced, no more  $\text{SiO}_2$  is being consumed (i.e., becoming part of the protective film). This means the initial protective coating has been formed, and the treatment dosage can gradually be reduced to a maintenance dosage which will maintain the protective film.

It is important to continuously feed the silicate maintenance dose in order to preserve the film. If silicate treatment is stopped, the film will gradually dissolve.

## **DETERMINATION OF SILICA**

Test kits for determination of silica, as well as continuous monitoring equipment, are available from firms such as:

### **Hach Chemical Company**

**P.O. Box 389**  
**Loveland, Colorado 80539**

Classical laboratory procedures for the determination of silica by colorimetric and photometric techniques may be found in standard texts on inorganic analysis.

Such procedures are published in "Standard Methods for the Examination of Water and Waste Water," American Public Health Association, Washington, D.C., or in current ASTM Book of Standards (ASTM Designation D-859, "Standard Test Method for Silica in Water").

Test methods for silica determination should be reviewed concerning possible interference effects that may influence the accuracy of results.

## **METHODS OF FEEDING**

Sodium silicate solutions can be easily added to water by means of positive displacement metering pumps. Piston, plunger, diaphragm and gear pumps are suitable. Chemical feed rates can be adjusted by changing the length and speed of the piston or diaphragm stroke, or by adjusting the gear speed.

Silicate solution should be injected at a point near the discharge of the water treatment plant, after final filtration, (i.e., at the clear well). With groundwater, the silicate can be injected at the well site. The silicate feed pump can be wired to activate based on water flow rates, or in conjunction with water transport pumps, in order to maintain the proper proportion of silicate to water.

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Aside from a suitable storage tank and feed pump, no special equipment is required to use silicate. The silicate solution can be stored in drums, day-tanks, or if delivered in tanker trucks, in bulk storage tanks. It can be fed at delivered concentration or diluted with water. If diluted, this must be considered when calculating dosages.

The internals of the silicate feed pumps should be flushed with water when they are taken out of service (e.g., during routine maintenance.) For additional information refer to PQ bulletin 17-70, "Storage and Handling of PQ Liquid Sodium and Potassium Silicates."

**SAFETY**

Sodium silicate solutions are inorganic compounds. They are not explosive or flammable and are not classified as hazards in U. S. Department of Transportation shipping regulations.

Due to their moderate alkalinity, care should be taken to prevent contact of silicate solutions with eyes and skin. Personnel involved in unloading and/or handling silicate solutions should use protective clothing and equipment to prevent accidental contact. This equipment generally consists of hard hat, chemical goggles or face shield, alkali-resistant gloves, safety footwear and coveralls.

If silicate is splashed into the eyes, flush immediately with warm water and seek medical attention. If splashed on the skin, sodium silicate solution should be washed off with water, preferably warm water. If allowed to remain in contact with the skin, irritation may result.

Wet silicate spills are slippery and will dehydrate to form glass-like films; therefore, it is recommended that minor spills be rinsed with water immediately.

Some dried deposits of liquid silicate may form sharp edges (e.g., if spilled around openings of sample jars), and care should be taken in such cases since skin cuts may result. Such cuts should be washed with water and given appropriate medical attention to prevent infection.

Additional safety information is contained in Material Safety Data Sheets supplied by PQ Corporation.

**SUMMARY TABLE**

1. Soluble silicates are economical, effective, and environmentally responsible chemicals that have been used for more than 70 years to protect metals from the corrosive effects of water. They do not contribute zinc or phosphorus to the environment.
2. Silicates are approved as direct additives to potable water. They are nonhazardous, nontoxic, and nonflammable. They do not impart any taste or odor to water.
3. American Water Works Association Standard for Liquid Sodium Silicate (ANSI/AWWA B404) recognizes the use of sodium silicate in water treatment.
4. The U.S. Environmental Protection Agency recognizes that silicates may be effective in controlling lead and copper corrosion in potable water systems.
5. At the dilutions typical in water treatment, most of the added silica is in the monomeric form.

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6. The silica in sodium silicate solutions carries a negative charge and will migrate to anodic areas where it can react with metallic ions and form a protective film that inhibits corrosion.
7. The alkali present in silicate will typically raise pH. Increases in pH generally lead to decreased corrosion rates.
8. The film does not build on itself and will not obstruct water flow.
9. In areas of low water flow the supply of silica may eventually be exhausted within the effective range of the electrical forces around the anode. A sufficient water flow is required to supply additional silica.
10. In areas of low flow, the pH contribution of the silicate may also be reduced.
11. If only part of the area is protected, the remainder takes all the attack of the corrosive medium. Therefore it is important to use enough inhibitor.
12. The efficacy of the silicate treatment may vary with the type of metal.
13. The treatment has inhibited corrosion in systems where two dissimilar metals are in contact.
14. A passivation dose of 24 mg  $\text{SiO}_2/\text{L}$  is recommended during the first 30-60 days of treatment in order to quickly establish the protective film.
15. After the protective film has been formed, it can be maintained by feeding less silicate. In most waters a maintenance dosage of 8 mg  $\text{SiO}_2/\text{L}$  is effective.
16. The minimum recommended maintenance dosage is 4 mg  $\text{SiO}_2/\text{L}$ .
17. Higher dosages of silicate have been shown to give better protection from corrosion.
18. Higher dosages of silicate speed the formation of the protective film.
19. Optimum silicate dosage will depend on specific water chemistry and system characteristics.
20. The preferred sodium silicate solution for treating water with pH greater than 6.0 is 3.22 ratio  $\text{SiO}_2/\text{Na}_2\text{O}$ . For waters with pH of 6.0 or lower, 2.00 ratio  $\text{SiO}_2/\text{Na}_2\text{O}$  is preferred.
21. Silicate solutions from PQ are supplied ready to use, or may be diluted.
22. Contact PQ Corporation for product samples or additional information.

**ABBREVIATIONS**

**MGD:** Million Gallons per Day

**mg/L:** Milligram per Liter

**cps:** Centipoise

**ppm:** Parts per Million

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Phone: 416-255-7771

**IN MEXICO**

Silicates y Derivados, S.A.  
Phone: 011-52-55-5227-6801

**IN EUROPE**

PQ Europe  
Phone: 31-33-450-9030

**IN AUSTRALIA**

PQ Australia Pty. Ltd.  
Phone: 61-3-9708-9200

**IN TAIWAN**

PQ Silicates Ltd.  
Phone: 886-2-2383-0515

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Information herein is accurate to the best of our knowledge. Suggestions are made without warranty or guarantee of results. Before using, user should determine the suitability of the product for his intended use and user assumes the risk and liability in connection therewith. We do not suggest violation of any existing patents or give permission to practice any patented invention without a license.

**FACTORS FOR UNIT CONVERSIONS**

Quantity	Equivalent Values
Mass	1 kg=1000g= 0.001 metric ton = 2.20462 lb
Volume	1 m3 = 1000 liters = 106 cm3 = 106 ml = 22.83 imperial gallons = 27.41 gallons
Concentration	1 mg/L = 1 ppm = 0.0001%
Viscosity	1 centipoise = 1 millipascal-second = 0.01 poise

**LITERATURE REFERENCES**

1. Thresh, J. C., Analyst, p. 459, 1922.
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7. Select Committee on GRAS Substances, Evaluation of the Health Aspects of Certain Silicates as Food Ingredients, SCOGS-61, Federation of American Societies for Experimental Biology, NTIS Publication 301-402/AS, Springfield, Va., p.4, 1979.
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11. Vail, J. G., Soluble Silicates, Their Properties and Uses, Vol. 2, Technology, Reinhold Publishing, New York, NY, p. 251, 1952.
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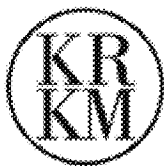
**From:** Baird, Richard (GOV)  
**Sent:** Friday, January 22, 2016 6:16 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Fwd: PQ / Water Treatment  
**Attachments:** 37-3 Water Corrosion (2).pdf

FYI. Can't see there is any need but should close loop. Thanks.

*Sent from my Verizon Wireless 4G LTE DROID*

----- Forwarded message -----

From: Deb Muchmore <[muchmored@krkm.com](mailto:muchmored@krkm.com)>  
Date: Jan 22, 2016 5:38 PM  
Subject: PQ / Water Treatment  
To: "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>  
Cc:



Deborah A. Muchmore | Partner  
KANDLER REED KHOURY & MUCHMORE  
124 W Allegan | Suite 1700  
Lansing, MI 48933  
(313) 485-4044 | Office  
(313) 643-7261 | Mobile  
[KRKM.com](http://KRKM.com)

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**From:** Andy Andersen(SAR) [<mailto:andy.andersen@pottersbeads.com>]  
**Sent:** Friday, January 22, 2016 3:36 PM  
**To:** Deb Muchmore <[muchmored@krkm.com](mailto:muchmored@krkm.com)>  
**Subject:** RE: KRKM Connect

Deb,

Attached is our brochure on our product with all the technical info about it. In a nutshell our product

One of the safest industrial chemicals

No toxic or volatile material

Stable for extended periods of time

No organics and Non-flammable

GRAS for food contact and use in water

NSF Certified for use in drinking water

The major advantages over phosphate use is

It removes more lead than ...

It is not a fertilizer - will not cause over growth of algae and other water plants at discharge points unlike ...

It works faster to stop the lead from coming out of the pipe than ...

And it is cheaper than ....

Let me know what you find out?

Have a great weekend

Best Regards,

Andy Andersen

Potters Industries

941-266-8442

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**From:** Deb Muchmore [<mailto:muchmored@krkm.com>]

**Sent:** Thursday, January 21, 2016 4:16 PM

**To:** Andy Andersen(SAR)

**Subject:** KRKM Connect

Thanks.



Deborah A. Muchmore | Partner  
KANDLER REED KHOURY & MUCHMORE  
124 W Allegan | Suite 1700  
Lansing, MI 48233  
(313) 483-4044 | Office  
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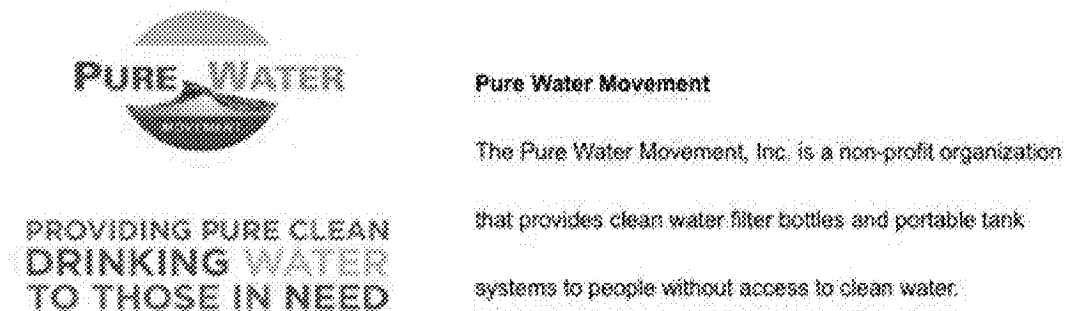
**From:** Stoken, Laura (GOV)  
**Sent:** Sunday, January 24, 2016 10:33 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: We have a non profit called Pure Water Movement and would like to help.  
**Attachments:** what puritii filters including Lead .jpg

For your determination

**From:** Claudia Ordonio [<mailto:dreamsrpossible4u@gmail.com>]  
**Sent:** Saturday, January 23, 2016 12:22 AM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>; Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Cc:** Claudia Ordonio <[dreamsrpossible4u@gmail.com](mailto:dreamsrpossible4u@gmail.com)>  
**Subject:** We have a non profit called Pure Water Movement and would like to help.

Dear Governor Snyder and Lt Governor Brian Calley,

I know you have been getting undated with many companies that have solutions for the Lead problem in the water. We may have a very viable solution for many families and I would like to talk to someone and connect them to our corporate office so we can see how we can help since our company has already been providing the bottles and portable tank systems as a non profit already.



My sister Sharon DeCarlo who lives in Shelby township Michigan and I are with a company named Ariix. We have a personal water bottles that filter out lead and heavy metals, viruses, bacteria and much more and filters 50 gallons per bottle ( or 280 (16oz ) bottles of water. They can use this where ever they are not just in the home.

Here is our site information <http://puritii.com/water/index.html>

This is the independent study of what the Puritii water bottles filters out. [http://www.puritii.com/water/\\_pdf/puritii\\_testing\\_procedures.pdf](http://www.puritii.com/water/_pdf/puritii_testing_procedures.pdf)

This water bottle is already being used in Singapore and China and was used by Navy Seals in Afghanistan. I know our company can work with your office to get a large amount of water bottle to the people who need it the most.




Please give us a chance to share with you this option to see if this could help the situation as a more permanent solution while the problem of cleaning up the lead is being addressed.

This shows how it filter under a microscope. <http://www.puritii.com/microscope.html>

Please email me or call me at 408-963-8449 so that we can answer questions you may have and help the people of Flint. Our company already does donations around the world for pure water. Please give us a chance to help. We are not trying to make a profit we truly want to help and we have a solution.

Sincerely  
Claudia Ordonio & Sharon DeCarlo



Pure. Simple. Water.

### Microbiological Organisms

Water Source	Contaminant	Contaminant Description	Removal Rate	Compliance Standard
Tap Water	Bacteria	Coliforms, E. coli, etc.	99.9999%	NSF/ANSI Standard 55
Tap Water	Virus	Adenovirus, etc.	99.99%	NSF/ANSI Standard 55
Tap Water	Fungus	Aspergillus, etc.	99.9999%	NSF/ANSI Standard 55

### Volatile Organic Compounds (VOC's)

Water Source	Contaminant	Contaminant Description	Removal Rate	Compliance Standard
Tap Water	Chlorine	Chlorine	99.99%	NSF/ANSI Standard 55
Tap Water	Lead	Lead	99.99%	NSF/ANSI Standard 55
Tap Water	Copper	Copper	99.99%	NSF/ANSI Standard 55
Tap Water	Fluoride	Fluoride	99.99%	NSF/ANSI Standard 55
Tap Water	Calcium	Calcium	99.99%	NSF/ANSI Standard 55
Tap Water	Magnesium	Magnesium	99.99%	NSF/ANSI Standard 55
Tap Water	Sulfate	Sulfate	99.99%	NSF/ANSI Standard 55
Tap Water	Nitrate	Nitrate	99.99%	NSF/ANSI Standard 55
Tap Water	Nitrite	Nitrite	99.99%	NSF/ANSI Standard 55
Tap Water	Ammonia	Ammonia	99.99%	NSF/ANSI Standard 55

### Inorganics

Water Source	Contaminant	Contaminant Description	Removal Rate	Compliance Standard
Tap Water	Chlorine	Chlorine	99.99%	NSF/ANSI Standard 55
Tap Water	Lead	Lead	99.99%	NSF/ANSI Standard 55
Tap Water	Copper	Copper	99.99%	NSF/ANSI Standard 55
Tap Water	Fluoride	Fluoride	99.99%	NSF/ANSI Standard 55
Tap Water	Calcium	Calcium	99.99%	NSF/ANSI Standard 55
Tap Water	Magnesium	Magnesium	99.99%	NSF/ANSI Standard 55

### Disinfectants

Water Source	Contaminant	Contaminant Description	Removal Rate	Compliance Standard
Tap Water	Chlorine	Chlorine	99.99%	NSF/ANSI Standard 55

### Trihalomethanes / VOC

Water Source	Contaminant	Contaminant Description	Removal Rate	Compliance Standard
Tap Water	Chlorine	Chlorine	99.99%	NSF/ANSI Standard 55
Tap Water	Lead	Lead	99.99%	NSF/ANSI Standard 55

### Testing Procedures

Testing procedures for Puritii water filters are conducted in accordance with NSF/ANSI Standard 55. The testing is performed by an independent laboratory and is designed to ensure that the filters meet the required performance standards. The testing includes a series of challenges, including the addition of known concentrations of contaminants, followed by a measurement of the removal rate. The results of the testing are then compared to the required standards to determine if the filters are compliant.

For more information on the testing procedures, please visit our website at <http://www.puritii.com/testing-procedures>.

## Microbiological Organisms

Water System	Contaminant	Detected Health Effect	Exposure Rate	WHO Standards
Water System - Boise	Radon	Genotoxicity, cancers	500-5000 dpm/l	EPA/WHO standards by 100
Water System - Boise	Mercury	Neurotoxicity, cancers	90-99%	EPA/WHO standards by 100
Water System - Boise	Fluoride	Genotoxicity, cancers	500-5000 dpm/l	EPA/WHO standards by 1000

## Volatile Organic Compounds (VOC's)

Water Source	Contaminant	Observed Exposure (1)	Observed Exposure (2)	Observed Exposure (3)	Exceeds Standards
Flow #Thruout Water	Air EDT	Cancer		>6.3%	Exceeds Standards
Flow #Thruout Water	Aden	Cancer, Reproductive system damage, Nervous system damage		>6.3%	Exceeds Standards
Flow #Thruout Water	Diethyl	Cancer, Reproductive system damage, Nervous system damage		>6.3%	Exceeds Standards
Flow #Thruout Water	Endosulfan Sulfate	Cancer		>6.2%	Exceeds Standards
Flow #Thruout Water	Endrin	Cancer problems		50.90%	Exceeds Standards
Flow #Thruout Water	Heptachlor	Increased risk of cancer or liver damage		>6.3%	Exceeds Standards
Flow #Thruout Water	Endrin	Liver or kidney problems		50.70%	Exceeds Standards
Flow #Thruout Water	Melathion	Cancer		50.50%	Exceeds Standards
Flow #Thruout Water	Chloroform	Alcohol, nervous system damage, Cancer		50.68%	Exceeds Standards

## Inorganics

Water System	Contaminant	Primary Human Effect	Prevalence Rate	Mitigation Strategies
Point A Chlorine Water	Chromium	Liver, kidney, circulatory disorders	93-97%	Exceeds Standards
Point B Fluoride Water	Lead	Nervous, circulatory system damage	>95%	Exceeds Standards
Point C Chlorine Water	Dioxin	Cancer, Reproductive system damage, Nervous system damage	>95-97%	Exceeds Standards
Point D Fluoride Water	Chromium <sup>VI</sup>	Kidney damage, cancer	>95-98%	Exceeds Standards
Point E Chlorine Water	Mercury	Brain damage	96-99%	Exceeds Standards

## Disinfectantis

Water Sample	Chlorination	Removal of Micro-Organisms	Removal of Taste	MSD Method Approved
Pratap College Water	Chlorite	Over 99% reduction observed	99.50%	Exceeds Standards

## Trihalomethanes / VOC

Water Sample	Contaminant	Discharge Point (km)	Percentage (%)	End Use & Comments
Plant Effluent Water	Chlorophyll	Alkali, benzene system storage, cancer	92.60%	Excess Chlorophyll
Plant Effluent Water	Benzene	Cancer, leukemia, anemia	98.57%	Excess Benzene

## Testing Procedures

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

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These results suggest that the use of the *in vitro* model is a useful tool for the study of the effects of chemical agents on the development of the embryo. The results of this study suggest that the use of the *in vitro* model is a useful tool for the study of the effects of chemical agents on the development of the embryo.

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## Microbiological Organisms

Water Sample	Contaminant	Associated Health Effect	Reduction Rate	NSF/ANSI Standard
Purii Efficient Water	Bacteria	Gastrointestinal diseases	>99.9999%	NSF/ANSI standard by 122
Purii Efficient Water	Virus	Gastroenteric diseases	99.99%	NSF/ANSI standard by 122
Purii Efficient Water	Parasite	Gastrointestinal diseases	>99.999%	NSF/ANSI standard by 122

## Volatile Organic Compounds (VOC's)

Water Sample	Contaminant	Associated Health Effect	Reduction Rate	NSF/ANSI Standard
Purii Efficient Water	A-1-CDT	Cancer	>99.9%	Exceeds Standards
Purii Efficient Water	Aldrin	Cancer, Reproductive system damage, Nervous system damage	99.9%	Exceeds Standards
Purii Efficient Water	Dieldrin	Cancer, Reproductive system damage, Nervous system damage	>99.9%	Exceeds Standards
Purii Efficient Water	Endosulfan sulfate	Cancer	>99.9%	Exceeds Standards
Purii Efficient Water	Endrin	Liver problems	99.99%	Exceeds Standards
Purii Efficient Water	Heptachlor	Increased risk of cancer or liver damage	>99.9%	Exceeds Standards
Purii Efficient Water	Ordnare	Liver or kidney problems	99.99%	Exceeds Standards
Purii Efficient Water	Methion	Cancer	99.99%	Exceeds Standards
Purii Efficient Water	Chloroform	Muscle, nervous system damage, Cancer	99.99%	Exceeds Standards

## Inorganics

Water Sample	Contaminant	Associated Health Effect	Reduction Rate	NSF/ANSI Standard
Purii Efficient Water	Chromium	Liver, kidney, circulatory diseases	99.99%	Exceeds Standards
Purii Efficient Water	Lead	Kidney, nervous system damage	>99%	Exceeds Standards
Purii Efficient Water	Dechlor	Cancer, Reproductive system damage, Nervous system damage	>99.9%	Exceeds Standards
Purii Efficient Water	Uranium**	Kidney damage, cancer	>99.9%	Exceeds Standards
Purii Efficient Water	Mercury	Kidney damage	99.99%	Exceeds Standards

## Disinfectants

Water Sample	Contaminant	Associated Health Effect	Reduction Rate	NSF/ANSI Standard
Purii Efficient Water	Chlorine	Gastrointestinal diseases, Nausea	99.99%	Exceeds Standards

## Trihalomethanes / VOC

Water Sample	Contaminant	Associated Health Effect	Reduction Rate	NSF/ANSI Standard
Purii Efficient Water	Chloroform	Muscle, nervous system damage, Cancer	99.99%	Exceeds Standards
Purii Efficient Water	Benzene	Cancer, Leukemia, Anemia	99.97%	Exceeds Standards

## Testing Procedures

Exceeds the required standard of 99.9999% for bacteria, 99.99% for virus, and 99.999% for parasites. The NSF/ANSI Standard for drinking water purifiers (NSF/ANSI Standard 42) requires a minimum reduction of 99.9999% for bacteria, 99.99% for virus, and 99.999% for parasites. The NSF/ANSI Standard for drinking water purifiers (NSF/ANSI Standard 42) requires a minimum reduction of 99.9999% for bacteria, 99.99% for virus, and 99.999% for parasites. The NSF/ANSI Standard for drinking water purifiers (NSF/ANSI Standard 42) requires a minimum reduction of 99.9999% for bacteria, 99.99% for virus, and 99.999% for parasites.

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**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, January 26, 2016 11:42 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** Solution- Company

**From:** [jbailor@hydrogen411technology.com](mailto:jbailor@hydrogen411technology.com) [<mailto:jbailor@hydrogen411technology.com>]  
**Sent:** Tuesday, January 26, 2016 11:41 AM  
**To:** Stoken, Laura (GOV) <[StokenL@michigan.gov](mailto:StokenL@michigan.gov)>  
**Subject:** Per our conversation/ Water Crisis

Dear Laura,

Thank you so much for your help! Michigan needs a real solution that will fit the states budget and solve the never ending pollution issues. As I stated this is not my companies technology but I am honored to be trusted to represent it. The inventor is a true humanitarian so each deployment must fit a criteria that involves environmental clean up. This technology has been fully vetted in uninterrupted operation for over ten years.

This is WTE (Waste to Energy) Plasma Technology which is nothing new except this is the only WTE system that can operate on dirty water alone. The by product is 100% pure water and energy. A small system could take in 300,000 gallons from the Flint River per day and produce 250,000 gallons of pure water and 10MW of Electricity. The process is 100% emission free. Water is not the only feed stock any waste can be eliminated that would include the lead infested pipes that will need to be disposed of.

This is a new way of thinking about waste. The old thinking is to dump it in our rivers and lakes or bury it and hope it go's away. Now waste is a commodity!

Why would this be the best solution? 1st. it's affordable because it is not for sale. As simple as I can describe it the City of Flint puts up 5 million dollars as what I will describe as an engagement fee for now. After the cities or states engineers visit one of the deployments and conduct load tests and all vetting. When all contracts are negotiated then money changes hands. That money is payed back to the city with interest within the 1st few years of the contract.

The owner inventor makes money from the sale of electricity. Flint gets the water for free. It's a win win but will require people working together to change the old paradigm. This will require cooperation from waste management and Consumers Electric.

At a time when the infrastructure must be rebuilt we have to consider the importance of doing it right this time.

I look forward to opening dialogue with the appropriate people.

Best Regards,

John Ballor  
Founder/ Managing Partner  
Hydrogen411 Technology LLC  
[www.hydrogen411technology.com](http://www.hydrogen411technology.com)

[jballor@hydrogen411technology.com](mailto:jballor@hydrogen411technology.com)

1-855-411-H24T (4248) Phone & Fax

989-545-9261 mobile



Hydrogen411 Technology

Integrated Energy Solutions

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**From:** Stoken, Laura (GOV)  
**Sent:** Monday, January 25, 2016 3:12 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: More suggestions water crisis help.

**From:** C Laymn [<mailto:layman.candi@gmail.com>]  
**Sent:** Monday, January 25, 2016 2:43 PM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** More suggestions water crisis help.

Dear Laura,

I wrote to you regarding drilling wells for Flint to supply ongoing water. After my discussions with my husband, an attorney he wondered if you had considered Eminent Domain to declare an EPA Superfund Site, I didn't think this would work due to people wanting to keep their jobs, but it did give me another unique idea.

Tiny housing is becoming very popular. You could have University of Michigan and GM to help you innovate jobs and new eco-friendly living homes - tiny homes. Some are mobile, some are not. It would help Flint for any foreclosures or blighted areas (I have a banking background and any EPA remediation on lead will really hurt the banks if buyers default). You could generate jobs, rebuild key employers plumbing, and demo anything that is blighted - allowing Flint a unique opportunity to see if something like this would work in larger cities like Detroit, Gary or area in Chicago. You could

turn a negative into a positive while building jobs and helping people in economic distress.

I would add the fine state of Indiana already has lots of experience with RV bases and building on smaller scale - but you could use their know-how and better eco-friendly materials to help mitigate the potential for serious health problems. A huge plus is, if you build the tiny homes to be pulled (like some programs I've seen), then some people may choose to leave Flint, and you'd see just who wanted to remain creating a more sustainable region along with offering an out for those in poverty who would like a fresh start somewhere else if they choose.

Keeping you in my thoughts and prayers.

Candi Layman

419-670-4680

Fort Wayne, Indiana

[layman.candi@gmail.com](mailto:layman.candi@gmail.com)

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**From:** Wisniewski, Wendy (GOV)  
**Sent:** Tuesday, January 26, 2016 8:16 AM  
**To:** Baird, Richard (GOV); Sachs, Tori (GOV)  
**Cc:** Manolakoudis, Virginia (GOV)  
**Subject:** FW: CGI/DCMC Partners

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Jarrold said I should forward this meeting request to you guys for review.

---

**From:** Mike Compagnoni [mailto:compagnoni@midweststrategy.com]  
**Sent:** Monday, January 25, 2016 5:01 PM  
**To:** Wisniewski, Wendy (GOV) <wisniewski@midweststrategy.com>  
**Cc:** Nicole Nystrom <nystrom@midweststrategy.com>  
**Subject:** CGI/DCMC Partners

Wendy,

Thank you for taking the time last week to have a discussion with me regarding disaster management. We spoke with our client CGI and DCMC, and we would like to request a meeting with Jarrod Agen. CGI with DCMC Partners have participated in the disaster recovery of every major US event in the last 10-15 years. CGI works closely with DCMC on disaster recovery. CGI's expertise includes experience with Hurricane Katrina, Superstorm Sandy, and the major flooding in Iowa. As you likely know, CGI also does extensive work with the state to replace the MAIN system with the new Sigma project. CGI also partners with DHHS to provide IT services for Medicaid eligibility and the Healthy Michigan Plan.

The meeting would be with Jon Jasper, Regional Account Executive, and John Stephan, Regional Government Relations Director for CGI. Additionally, Drew Sachs from DCMC Partners would be in attendance, he headed the NJ response to Superstorm Sandy. Nicole Nystrom or myself would be there from Midwest Strategy Group. Additional background on the services CGI provides can be found here: <http://www.cgi.com/sites/default/files/brochures/cgi-natural-disaster-recovery-services-factsheet.pdf>

The meeting topic would be disaster recovery and management assistance. Recognizing how busy Jarrod is, we are flexible on scheduling times for this meeting. Thanks again.

Regards,

Mike

**Mike Compagnoni**  
*Government Relations*

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Midwest Strategy Group  
101 S. Washington Square,  
Suite 620  
Lansing, MI 48933

Telephone: 517.853.0537  
Facsimile: 517.853.0556





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**From:** Cody Beausejour <codybeausejour@gmail.com>  
**Sent:** Tuesday, January 26, 2016 9:33 PM  
**To:** Calley, Brian (GOV); Sachs, Tori (GOV)  
**Subject:** Flint Water Solution Concept Design  
**Attachments:** Concept Design For Distiller.jpg

Dear Lt. Governor Calley, and staff of the Michigan State Executive Branch.

As you can see in the drawing I have provided, Lead contaminated water will be extracted into a distillery machine from the Flint water main. The lead contaminated water is distilled, and clean drinkable water is collected. The clean water will be distributed in the same manor as bottled water is at the distribution centers.

Currently, The state of Michigan and other donors are provided bottled water for residents of flint. The costs to provide enough drinking water are over 50,000\$ a day. In a years time, that is over 18 million dollars a year. (50,000 x 365 = 18,250,000)

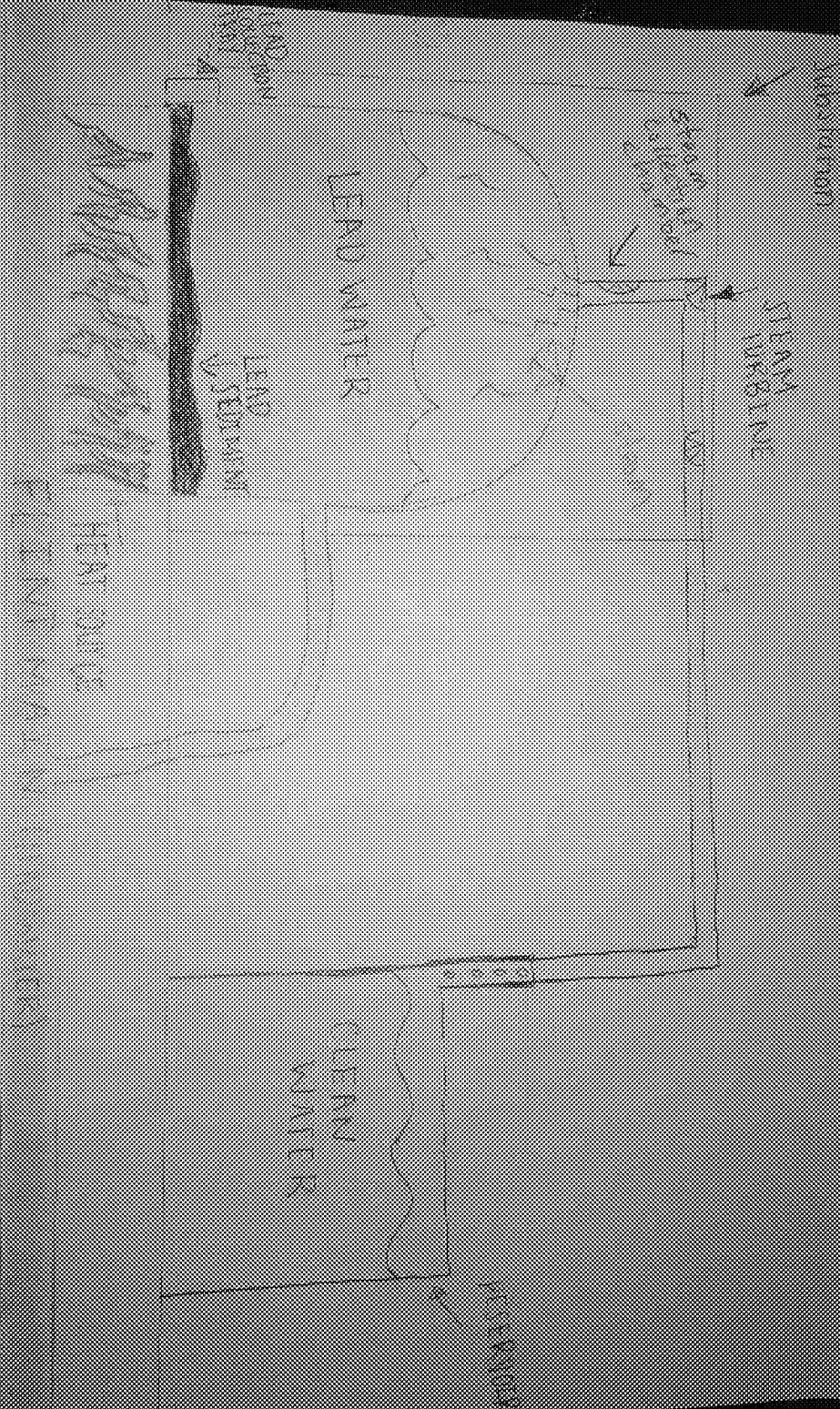
Research should be done to estimate the cost of building the water distillerie(s). I am more than happy to do more independent research on this. I would like to request a meeting with the Governor and, or Lt. Governor, or a member of their staff to discuss further details.

Thank you for reading, Cody Micheal Beausejour.

Recipients:

Lt. Governor Brian Calley ([calleyb11@michigan.gov](mailto:calleyb11@michigan.gov))  
External Affairs Advisor, Ms. Tori Sachs ([SachsT@michigan.gov](mailto:SachsT@michigan.gov))

# Concept Design



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**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 11:09 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: RDNs fight lead with nutrition  
**Attachments:** MSUE\_Fight\_Lead\_With\_Nutrition[9].pdf

Should this info go to MDHHS?

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**From:** Calley, Brian (GOV)  
**Sent:** Tuesday, January 26, 2016 11:08 AM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** FW: RDNs fight lead with nutrition

**From:** Bethany Thayer [<mailto:bethanythayerrd@gmail.com>]  
**Sent:** Sunday, January 24, 2016 3:33 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Subject:** RDNs fight lead with nutrition

Dear Lt Governor Calley,

During the January 19, 2016 State of the State address, Governor Snyder discussed a number of recommendations that needed to be implemented in order to address the water crisis in the City of Flint. One recommendation was the importance of nutrition education to the children and adolescents exposed to lead based water.

The **Michigan Academy of Nutrition and Dietetics**, a professional organization of over 2,000 Registered Dietitian Nutritionists (RDN), appreciated the governor's recognition that proper nutrition guidance for those exposed to lead is vital to protect the health and well being of the children and adolescents in Flint. The proper food and nutrients that are consumed can assist in limiting the ill effects to children and adolescents who have been exposed to lead. Exposure to even low levels of lead over time impacts a child's development, resulting in learning and behavior problems.

We are especially proud of our members in the Flint area who are currently working to improve the health of those children and adolescents. Those RDN's and other nutrition professionals in WIC, the Michigan State University Extension and the health department are assuring that those at risk receive the evidence based nutritional guidance to consume nutrient-rich, well-balanced meals and snacks. Other RDN's at local hospitals and health systems are also available as needed and are valuable

resources in assisting parents, caregivers, children and adolescents who are in need of fresh and healthy foods.

If you are aware of any Flint residents in need of nutrition resources, meal and snack planning, nutrition assessment and medical nutrition therapy in the treatment of adverse lead exposure, please contact the Michigan Academy of Nutrition and Dietetics office at 586-774-7747 or via e-mail: [mda.execdir@sbcglobal.net](mailto:mda.execdir@sbcglobal.net). Our Executive Director will provide you with the name and contact information of nutrition professionals in your district who can assist you.

For your reference and distribution, we have attached a handout entitled "Fight Lead With Nutrition" that is currently being provided to a number of Flint residents. Please feel free to distribute to those in your district who are affected by this ongoing crisis.

In good health,

Bethany Thayer, MS, RDN, FAND

President, Michigan Academy of Nutrition and Dietetics

[www.eatrightmich.org](http://www.eatrightmich.org)

# FIGHT LEAD WITH NUTRITION

The foods we prepare and serve to our families can help limit the effects of our kids' exposure to lead! Three steps you can take in choosing and preparing food can make a difference:

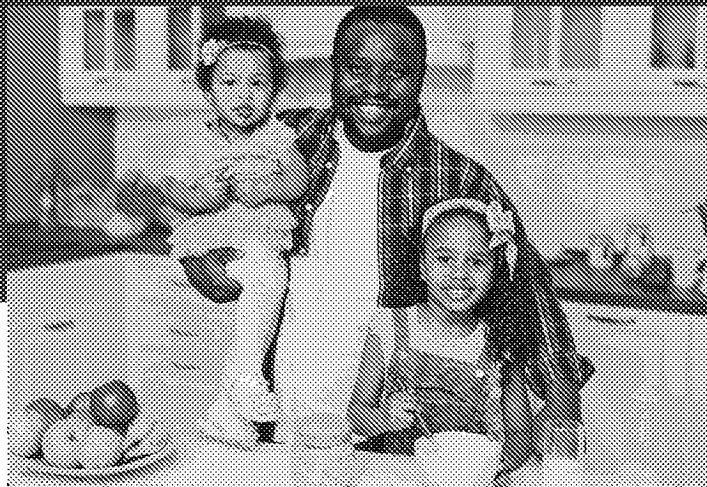
1. When preparing food, be sure to wash and cook it with filtered water.
2. Serve your kids small, healthy snacks between meals.
3. Serve foods that are high in a few really important nutrients: **iron, calcium and vitamin C!**



## LEAD FACTS

Lead isn't good for anyone's health and is especially bad for small children. Keep your family lead-safe by avoiding contact with it. If you live in the city of Flint, or get water from the city's water system, be sure to use an NSF-certified filter for drinking, cooking and mixing baby formula. Make sure to change the filter cartridge by the date printed on the package. Remember that you and your children can also be exposed to lead from old paint, dust, dirt, pottery, make-up, toys and some home remedies.

If you have any concerns about lead or your child's diet, talk with your doctor.



## LEAD-FIGHTING NUTRIENTS

### CALCIUM

Calcium keeps your bones strong and the lead out! Calcium-rich foods include:

- ♦ Milk and milk products, like cheese and yogurt
- ♦ Green leafy vegetables, such as spinach, kale, and collard greens
- ♦ Calcium-enriched orange juice
- ♦ Tofu
- ♦ Canned salmon and sardines (both with the bones in)

### IRON

Iron keeps too much lead from getting into your body. Foods high in iron include:

- ♦ Lean red meats, fish (tuna and salmon) and chicken
- ♦ Green leafy vegetables, such as spinach, kale and collard greens
- ♦ Iron-fortified cereal, bread and pasta
- ♦ Dried fruit, such as raisins and prunes
- ♦ Beans

### VITAMIN C

Vitamin C works with iron to keep too much lead from getting into your body. Good sources of vitamin C include:

- ♦ Citrus fruits, like oranges and grapefruit and their juices
- ♦ Tomatoes and tomato juice
- ♦ Peppers
- ♦ Other fruits like kiwi, strawberries and melons



## LEAD RESOURCES

- ♦ Genesee County Health Department Lead Program: [www.gchd.us](http://www.gchd.us); phone: 810-257-3833
- ♦ Michigan Department of Environmental Quality (DEQ): [www.mi.gov/FlintWater](http://www.mi.gov/FlintWater)
- ♦ Michigan Department of Health and Human Services (DHHS) Childhood Lead Poisoning Prevention Program: [www.michigan.gov/lead](http://www.michigan.gov/lead); phone: 888-322-4453
- ♦ U.S. Centers for Disease Control and Prevention (CDC): [www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)
- ♦ U.S. Environmental Protection Agency (EPA): [www.epa.gov/lead](http://www.epa.gov/lead)

## WHERE TO GET HELP

### Food Assistance in Genesee County

#### Commodities Food Program

This supplemental food program is designed to help low-income pregnant or breastfeeding women, new mothers up to one year after birth, infants, children up to age 6, and people aged 60 and up. Food is provided once a month. Call 810-789-3746 or 810-789-4409 for details.

#### Double Up Food Bucks (DUFEB)

The DUFEB program matches your SNAP benefits when you buy Michigan-grown fruits and vegetables. For example, if you buy \$10 worth of Michigan produce, you'll get an extra \$10 to buy more fruits and veggies!

You can use this program at:

- \* Flint Farmer's Market, 300 East 1st Street, Flint, phone 810-232-1399, open year round
- \* Landmark Food Center (two locations) 206 West Pierson Road, Flint, phone 810-789-7311, OR 4644 Fenton Road, Flint, phone 810-238-2972, call to check dates and hours for both locations.

#### The Emergency Food Assistance Program (TEFAP)

TEFAP provides healthy foods to qualified families and individuals once every 4 months. Call GCCARD at 810-789-3746 or 810-789-4409 for details.

#### Food Bank of Eastern Michigan

The Food Bank of Eastern Michigan offers many food assistance programs. Call 810-239-4441 for details.

#### Supplemental Nutrition Assistance Program (SNAP)

The SNAP program (formerly called *food stamps*) provides low-income

residents with money to purchase food, including:

- \* Fruits and vegetables
- \* Breads and cereals
- \* Dairy, meat, fish and poultry

You're also allowed to buy seeds and food-producing plants with your SNAP benefits to grow your own food. Apply for SNAP at [www.mibridges.michigan.gov](http://www.mibridges.michigan.gov) or call the Genesee County Department of Health and Human Services (DHHS) at 810-760-2200.

#### WIC (Women, Infants & Children)

The WIC program supplies extra food for low-income pregnant or breastfeeding mothers, infants and children up to 5 years old who are at nutritional risk. Foods provided through WIC include:

- \* Infant formula and iron-fortified cereals
- \* Fruits and vegetables rich in iron, calcium and vitamin C
- \* Whole grain bread and cereals
- \* Eggs, milk, cheese and yogurt

To apply for WIC, call 800-262-4784 (toll-free) or 810-237-4537.

#### WIC-Project Fresh

If you receive WIC benefits, you're eligible to receive Project Fresh coupons to buy locally grown fruits

and veggies! This program runs from June 1 through October 31 each year. For more information contact Genesee County WIC at 810-237-4537 or MSU Extension at 810-244-8500.

### Additional Genesee County Resources

#### 211

- \* Service connects Genesee County residents to community resources including food, transportation, education and health care
- \* Connects residents to sources of water filters and replacement cartridges
- \* Locally funded by United Way Genesee County.
- \* Phone 211
- \* Web: [www.211.org](http://www.211.org)

#### Flint Water Department

- \* Offers free or low-cost water testing
- \* Phone 810-787-6537

#### Genesee County Community Action Resource Department (GCCARD)

- \* Offers free water filters
- \* Phone 810-789-3746 or 810-789-4409

#### Michigan State University Extension

- \* Offers free nutrition education classes
- \* Soil testing for lead
- \* Phone 810-244-8500

### Sources

- Iron Deficiency Anemia Prevention: Diseases and Conditions*. Mayo Clinic. (2014). Retrieved from <http://www.mayoclinic.org/diseases-conditions/iron-deficiency-anemia/basics/prevention/con-20019327>
- Lead and a Healthy Diet: What You Can Do to Protect Your Child* [EPA-747-F01-004]. U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. (2001). Retrieved from <http://www2.epa.gov/sites/production/files/documents/nutrition.pdf>
- Learn About Lead* [overview and fact sheets]. U.S. Environmental Protection Agency. (2015). Retrieved from <http://www.epa.gov/lead/learn-about-lead>
- Nutrition and Lead Poisoning Prevention*. Nebraska Department of Health and Human Services. (2011). Retrieved from <http://dhhs.ne.gov/publichealth/Pages/LeadNutrition.aspx>
- Soil Lead: Testing, Interpretation, and Recommendations*. University of Massachusetts Amherst, Soil and Plant Tissue Testing Laboratory. (n.d.). Retrieved from <https://soiltest.umass.edu/fact-sheets/soil-lead-testing-interpretation-recommendations>

### Acknowledgments

These materials were partially funded by the United States Department of Agriculture (USDA) Supplemental Nutrition Assistance Program Education (SNAP-Ed) by way of Michigan State University Extension and also partially by Hurley Children's Hospital.

Produced by ANR Communications for MSU Extension (<http://msue.anr.msu.edu/>).

MICHIGAN STATE UNIVERSITY | Extension



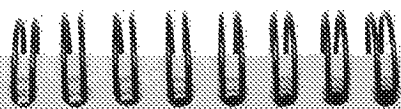
HURLEY  
CHILDREN'S  
HOSPITAL



# FIGHT LEAD WITH NUTRITION

The foods we prepare and serve to our families can help limit the effects of our kids' exposure to lead! Three steps you can take in choosing and preparing food can make a difference:

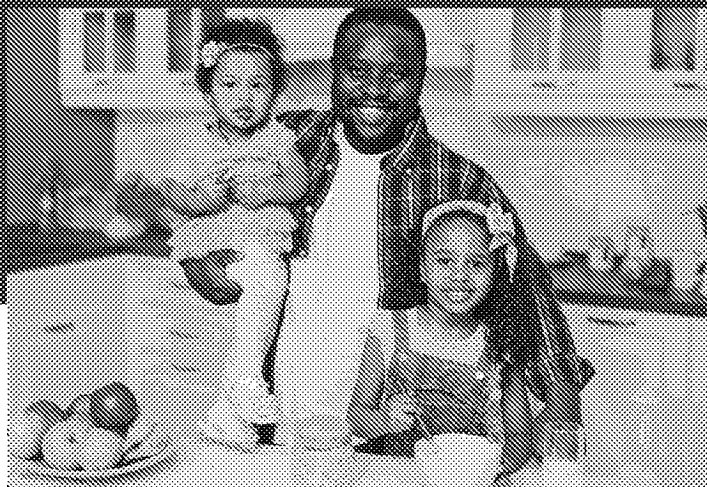
1. When preparing food, be sure to wash and cook it with filtered water.
2. Serve your kids small, healthy snacks between meals.
3. Serve foods that are high in a few really important nutrients: **iron, calcium and vitamin C!**



## LEAD FACTS

Lead isn't good for anyone's health and is especially bad for small children. Keep your family lead-safe by avoiding contact with it. If you live in the city of Flint, or get water from the city's water system, be sure to use an NSF-certified filter for drinking, cooking and mixing baby formula. Make sure to change the filter cartridge by the date printed on the package. Remember that you and your children can also be exposed to lead from old paint, dust, dirt, pottery, make-up, toys and some home remedies.

If you have any concerns about lead or your child's diet, talk with your doctor.



## LEAD-FIGHTING NUTRIENTS

### CALCIUM

Calcium keeps your bones strong and the lead out! Calcium-rich foods include:

- \* Milk and milk products, like cheese and yogurt
- \* Green leafy vegetables, such as spinach, kale, and collard greens
- \* Calcium-enriched orange juice
- \* Tofu
- \* Canned salmon and sardines (both with the bones in)

### IRON

Iron keeps too much lead from getting into your body. Foods high in iron include:

- \* Lean red meats, fish (tuna and salmon) and chicken
- \* Green leafy vegetables, such as spinach, kale and collard greens
- \* Iron-fortified cereal, bread and pasta
- \* Dried fruit, such as raisins and prunes
- \* Beans

### VITAMIN C

Vitamin C works with iron to keep too much lead from getting into your body. Good sources of vitamin C include:

- \* Citrus fruits, like oranges and grapefruit and their juices
- \* Tomatoes and tomato juice
- \* Peppers
- \* Other fruits like kiwi, strawberries and melons



## LEAD RESOURCES

- \* Genesee County Health Department Lead Program: [www.gchd.us](http://www.gchd.us); phone: 810-257-3833
- \* Michigan Department of Environmental Quality (DEQ): [www.mi.gov/FlintWater](http://www.mi.gov/FlintWater)
- \* Michigan Department of Health and Human Services (DHHS) Childhood Lead Poisoning Prevention Program: [www.michigan.gov/lead](http://www.michigan.gov/lead); phone: 888-322-4453
- \* U.S. Centers for Disease Control and Prevention (CDC): [www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)
- \* U.S. Environmental Protection Agency (EPA): [www.epa.gov/lead](http://www.epa.gov/lead)



## WHERE TO GET HELP

### Food Assistance in Genesee County

#### Commodities Food Program

This supplemental food program is designed to help low-income pregnant or breastfeeding women, new mothers up to one year after birth, infants, children up to age 6, and people aged 60 and up. Food is provided once a month. Call 810-789-3746 or 810-789-4409 for details.

#### Double Up Food Bucks (DUFEB)

The DUFEB program matches your SNAP benefits when you buy Michigan-grown fruits and vegetables. For example, if you buy \$10 worth of Michigan produce, you'll get an extra \$10 to buy more fruits and veggies!

You can use this program at:

- \* Flint Farmer's Market, 300 East 1st Street, Flint, phone 810-232-1399, open year round
- \* Landmark Food Center (two locations) 206 West Pierson Road, Flint, phone 810-789-7311, OR 4644 Fenton Road, Flint, phone 810-238-2972, call to check dates and hours for both locations.

#### The Emergency Food Assistance Program (TEFAP)

TEFAP provides healthy foods to qualified families and individuals once every 4 months. Call GCCARD at 810-789-3746 or 810-789-4409 for details.

#### Food Bank of Eastern Michigan

The Food Bank of Eastern Michigan offers many food assistance programs. Call 810-239-4441 for details.

#### Supplemental Nutrition Assistance Program (SNAP)

The SNAP program (formerly called *food stamps*) provides low-income

residents with money to purchase food, including:

- \* Fruits and vegetables
- \* Breads and cereals
- \* Dairy, meat, fish and poultry

You're also allowed to buy seeds and food-producing plants with your SNAP benefits to grow your own food. Apply for SNAP at [www.mibridges.michigan.gov](http://www.mibridges.michigan.gov) or call the Genesee County Department of Health and Human Services (DHHS) at 810-760-2200.

#### WIC (Women, Infants & Children)

The WIC program supplies extra food for low-income pregnant or breastfeeding mothers, infants and children up to 5 years old who are at nutritional risk. Foods provided through WIC include:

- \* Infant formula and iron-fortified cereals
- \* Fruits and vegetables rich in iron, calcium and vitamin C
- \* Whole grain bread and cereals
- \* Eggs, milk, cheese and yogurt

To apply for WIC, call 800-262-4784 (toll-free) or 810-237-4537.

#### WIC-Project Fresh

If you receive WIC benefits, you're eligible to receive Project Fresh coupons to buy locally grown fruits

and veggies! This program runs from June 1 through October 31 each year. For more information contact Genesee County WIC at 810-237-4537 or MSU Extension at 810-244-8500.

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- \* Phone 810-789-3746 or 810-789-4409

#### Michigan State University Extension

- \* Offers free nutrition education classes
- \* Soil testing for lead
- \* Phone 810-244-8500

### Sources

- Iron Deficiency Anemia Prevention: Diseases and Conditions*. Mayo Clinic. (2014). Retrieved from <http://www.mayoclinic.org/diseases-conditions/iron-deficiency-anemia/basics/prevention/con-20019327>
- Lead and a Healthy Diet: What You Can Do to Protect Your Child* [EPA-747-F01-004]. U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. (2001). Retrieved from <http://www2.epa.gov/sites/production/files/documents/nutrition.pdf>
- Learn About Lead* [overview and fact sheets]. U.S. Environmental Protection Agency. (2015). Retrieved from <http://www.epa.gov/lead/learn-about-lead>
- Nutrition and Lead Poisoning Prevention*. Nebraska Department of Health and Human Services. (2011). Retrieved from <http://dhhs.ne.gov/publichealth/Pages/LeadNutrition.aspx>
- Soil Lead: Testing, Interpretation, and Recommendations*. University of Massachusetts Amherst, Soil and Plant Tissue Testing Laboratory. (n.d.). Retrieved from <https://soiltest.umass.edu/fact-sheets/soil-lead-testing-interpretation-recommendations>

### Acknowledgments

These materials were partially funded by the United States Department of Agriculture (USDA) Supplemental Nutrition Assistance Program Education (SNAP-Ed) by way of Michigan State University Extension and also partially by Hurley Children's Hospital.

Produced by ANR Communications for MSU Extension (<http://msue.anr.msu.edu/>).

MICHIGAN STATE UNIVERSITY | Extension



HURLEY  
CHILDREN'S  
HOSPITAL

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**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 4:00 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company

**From:** Chase Bonhag [mailto:cbonhag@illinoisventures.com]  
**Sent:** Wednesday, January 27, 2016 3:54 PM  
**To:** Snyder, Rick (GOV) <Rick.Snyder@michigan.gov>  
**Subject:** Assisting Flint Michigan with Lead in Water Crisis

**ANDalyze (Champaign, IL) has an innovative product solution for testing drinking water for lead that can dramatically reduce the time and effort in addressing the Flint, Michigan water quality issue.**

Dear Governor Snyder,

I appreciate the quick response from your office, clearly your office is working vigorously to find a solution to the crisis in Flint. I'm a Michigan resident from Traverse City working for a Venture Capital firm, IllinoisVENTURES, in Champaign, IL. One of our portfolio companies, ANDalyze, has a technology that can dramatically reduce the time and effort in addressing the Flint water quality issue.

Rather than talk about what happened, let's focus on solutions.

ANDalyze has a product for the detection and measurement of lead (and other metals) in drinking water, offering quick and accurate on-site testing for lead in water within US EPA regulatory limits.

The ANDalyze products are readily available and were validated by the US EPA in 2014 for their effectiveness to test for lead concentrations in drinking water within the US EPA limit and are being sold around the world for just that purpose. We recently assisted the Hong Kong water authority with this same issue during their emergency last fall. ANDalyze's patented products are a new innovation that came out of the laboratories of the University of Illinois several years ago. The development of the technology has been, and continues to be supported by grants from the State of Illinois, US EPA, US DOE, NSF and NIH.

The advantage of the ANDalyze product is that it is portable, very easy to use, and accurate to below the US EPA regulatory limit and tests within two minutes (very quick compared to sending samples to a lab). This product can give the Flint community and water utility a fast and effective way to test water anywhere (schools, homes, hospitals Etc.) and avoid the delays, complexity and high cost of sending each sample to a central chemistry lab.

I've attached a product flyer and several links below for further information on ANDalyze and its product.

Additionally I would like to note that ANDalyze was awarded a \$1 million grant for the US DOE to commercialize an **automated monitoring system** that can be deployed within the water network to automatically monitor drinking water for the concentration of lead in the water, thus creating continuously available data on the lead levels of the water and is designed to alarm water utility operators if the lead levels are too high. We are looking to pilot test this system in the coming months.

At the bottom of the email you will find product information on ANDalyze for your office to review. I'm reaching out to introduce a product that can truly help you solve the issues in Flint and prevent the chance of an outbreak like this to happen in any other city in Michigan.

I'd appreciate the opportunity to speak about how ANDalyze can support your efforts. You can reach me by email or phone at (231) 590-4955, let's set up a time to speak within the next week to discuss the specifics on how ANDalyze can help you solve Flint's crisis.

I look forward to hearing from you.

Sincerely,

Chase

Chase Bonhag

IllinoisVENTURES

**ANDalyze Inc. (product information)**

- Website: [www.andalyze.com](http://www.andalyze.com)
- Product overview (AND1100): <https://www.youtube.com/watch?v=d2TGoEyCbto>
- Detailed product testing video (AND1100) : [https://www.youtube.com/watch?v=YHHKa2C\\_H4M](https://www.youtube.com/watch?v=YHHKa2C_H4M)
- US EPA testing results: (full 148 pg. report - [US EPA ETV Report](#) )
- US EPA testing results: (Short summary - <http://andalyze.com/wp-content/uploads/ANDalyze-Summary.pdf> )
- Recent US DOE grant award for Automated Lead Monitoring System: [Press release](#)

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**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 4:17 PM  
**To:** Sachs, Tori (GOV)  
**Cc:** Adamczyk, Lynne (GOV)  
**Subject:** FW: VENTRA Group, LLC Overview and Request to Meet

Sending your way Tori. This also went to Rich, Harvey, and Steve Arwood....

Lynne- for your process as well

---

**From:** George Jackson [<mailto:george@ventrailc.com>]  
**Sent:** Wednesday, January 27, 2016 4:07 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Cc:** Baird, Richard (GOV) <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>; Steudle, Betsy (MDOT) <[SteudleB@michigan.gov](mailto:SteudleB@michigan.gov)>; Arwood, Steve (MEDC) <[arwoods1@michigan.org](mailto:arwoods1@michigan.org)>; Hollins, Harvey (GOV) <[hollinsh@michigan.gov](mailto:hollinsh@michigan.gov)>  
**Subject:** VENTRA Group, LLC Overview and Request to Meet

Dear Governor Snyder,

Please see the attached overview letter, which provides a description of my new company and partners, and the services we can provide to the State of Michigan as it relates to its real estate development needs.

Sincerely,

George W. Jackson, Jr.

President

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**From:** Ackerman, Darin (GOV)  
**Sent:** Wednesday, January 27, 2016 4:58 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint

T-Rex,

Who should I funnel this type of stuff to? If his credentials are as outlined below and he's willing to help on a volunteer basis, someone should at least touch base with him.

Thanks,

Darin Ackerman, Deputy Director  
Legislative Affairs Division  
Office of Governor Snyder  
State Capitol  
Lansing, MI 48913  
Phone: (517) 241-3950

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**From:** Derek Sova [<mailto:Dsova@senate.michigan.gov>]  
**Sent:** Friday, January 22, 2016 2:55 PM  
**To:** Ackerman, Darin (GOV) <[ackermamd3@michigan.gov](mailto:ackermamd3@michigan.gov)>  
**Subject:** Flint

Hi Darin,

We received an email from a constituent of ours who used to be the executive secretary of the old Michigan Toxic Substance Control Commission (transferred to DNR in the 80s) who would like to offer some suggestions for steps moving forward re: Flint. Is there an official effort underway to come up with some long-term solutions to deal with those who may have been affected? Is there a contact person for that effort? He's in his mid-seventies, but he has a PhD in Environmental Epidemiology, he's dealt with public health issues like this before, and he's willing to share his experience. Couldn't hurt to hear to put him in touch with the right people.

Thanks,

**Derek Sova**  
Chief of Staff  
Sen. Tonya Schuitmaker  
517-373-0793  
[dsova@senate.mi.gov](mailto:dsova@senate.mi.gov)

---

**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 6:25 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company- solution

Eric Brown  
2800 East Central Avenue, Suite 1010  
Phoenix, AZ 85004  
602. 625. 2091  
[Eric.brown@carbonpipe.com](mailto:Eric.brown@carbonpipe.com)

From a personal standpoint we admire your dedication working to solve this tragic public catastrophe. We at Pipe Reconstruction, Inc., would like to offer our help in any way we can. In 1997 the KPFF Advanced Technology & Industrial Group and PRI invented the first application of a carbon fiber / epoxy resin composite to be used in the repair and strengthening of buried piping systems for the nuclear power plant industry. With almost 20 years of testing, approvals and hands-on experience, we have perfected our proprietary Carbon Composite Wrap application for potable and non-potable pressurized and non-pressurized pipe repair and replacement to a standard far above any other carbon fiber composite company.

To put it simply, we can line the inside of the existing lead pipe with a carbon fiber / epoxy composite that is not only suitable for potable water, but will be stronger and last longer than the original pipe. Our hand layer or inversion process has been perfected for pipes ranging in size from 4 to 144 inches in diameter, with pressures as high as 400 psi. PRI has produced, installed or managed the installation of more than 1.6 million square feet of carbon fiber for over 500 reconstruction and repair engagements on pipes around the world.

We would like to present your staff with information on our company and discuss some potential repair options which could begin immediately. Please visit our website at [www.pipereconstruction.com](http://www.pipereconstruction.com) to see examples of our work.

Sincerely,

Eric Brown  
Pipe Reconstruction, Inc.  
602-625-2091  
[eric.brown@carbonpipe.com](mailto:eric.brown@carbonpipe.com)  
[www.pipereconstruction.com](http://www.pipereconstruction.com)  
Laura Stoken  
Manager, Constituent Relations  
Executive Office of the Governor, Rick Snyder  
517.335.7858

---

**From:** GOV Scheduling  
**Sent:** Monday, February 01, 2016 12:13 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint Water Help  
**Attachments:** Cover letter And Resume With Attachments for Gov Snyder 2016.pdf

---

**From:** Edward G. Wenz, Jr. [<mailto:edward@leadrenovatortraining.net>]  
**Sent:** Monday, February 01, 2016 10:29 AM  
**To:** GOV Scheduling <[GOVScheduling@michigan.gov](mailto:GOVScheduling@michigan.gov)>  
**Subject:** Flint Water Help

Feb 1, 2016

Governor Rick Snyder -

I am writing this letter and have attached a cover letter and resume for myself for your review. I would like to help you, City of Flint, Flint residents, & the State of Michigan with this Flint Lead Water issue.

I feel with my unique background, knowledge, & skill set I would be helpful in working to find the right resolution to the crisis. I feel with my resume, I will be able to assist in all areas of the work that needs to be done. And come up with and manage the proper implementation of a "fix" to this issue. There are alot of people helping you but I'm not sure with the knowledge that I possess from the construction, lead inspections/risk assessments, water testing, housing rehab, water & sewer infrastructure, and safety needs of the public and workers.

Please feel free to contact me at anytime.

Sincerely,

Ed Wenz

*Edward G. Wenz, Jr.*  
Contractors Training Institute, LLC  
Lead Renovator Training, LLC  
CTL - Consulting, Testing, & Inspections, LLC  
Michigan Builders Training & Builders Con-Ed  
248-698-6900 ~ Fax# 248-694-2001  
Construction/ Environmental Consulting & Education

# Edward G. Wenz, Jr.

February 1, 2016

To Governor Rick Snyder:

I am writing in letter to offer my services to help you, the State of Michigan, & the residents of Flint my professional services and background to help with this water situation that has impacted the community.

I am currently an State of Michigan and EPA Trainer for the new RRP Rule, a State of Michigan Trainer for Lead Abatement (Worker, Supervisor, Inspector, & Risk Assessor), State of Michigan Trainer for Asbestos (Supervisor & Inspector), and State of Michigan Trainer for builders / contractors handling pre-lic classes, con-ed, osha, mold, & asbestos awareness. I am the owner of a Michigan Proprietary School for Builders Courses. I also own CTI – Consulting, Testing, & Inspections, which is a firm that inspects home, write rehab specifications, lead lead inspections & lead risk assessments, asbestos surveys, federal programs management, and more.

I previously worked with City of Pontiac Federal Programs as the Federal Programs Construction Manager. I handled many areas for the Federal Programs including, demolition of homes for emergency & scheduled programs, water/sewer/electrical/gas disconnects with a survey of all to document for future use, homeowner rehab, NSP rehab, board up, lawn mowing & debris clean ups, spec writing, training of contractors for the city, RFP's for many programs, and much more.

I have previously worked for Macomb County Planning Dept where I was a Rehabilitation Specialist with the Macomb County Rehabilitation Program, and I feel that my background was well suited for this position. In my position as a Rehabilitation Specialist / Building Inspector, I inspected homes for code violations, HUD HQS, and deficiencies in the building, plumbing, hvac, and electrical trades. I also write up specifications and bid out new rehabilitation projects, as well as monitor, inspect work upon completion, and process billings for housing rehabilitation projects. I wrote the county rehab contractor manual and designed and wrote a new inspection report, along with making it a computer application.

In addition to my experience a contractor, trainer, and with Pontiac & Macomb County, I have a residential builder's license, I hold licenses with the State of Michigan as a Lead Supervisor and Lead Inspector / Risk Assessor, Asbestos Supervisor Contractor, Asbestos Inspector, Mold Remediation Specialist, Certified Indoor Air Quality Tech, and I have owned my own construction firm since 1995. The construction company I owned had 50 employees contracting work in new construction, remodeling, additions, fire restoration, demolition, & commercial contracting. My firm had contracted installation programs for Home Depot and Lowe's, along with commercial work in retail, commercial, and institutional buildings in various counties. I previously sat on the Zoning Board of Appeals for St. Clair Shores, and I also have worked with local attorneys as an expert witness for homeowners with legal matters regarding construction.

I would consider it a great opportunity to work for / with the State with my skills and unique background that very few have with the well rounded knowledge of all aspects of the issues and how to fix, bid, & manage for the Flint Water issue. I would like to provide any other details as to my background & knowledge and/or the fix as I see it at your request. I will make time to meet with you anytime.

Thank you for taking the time to consider my resume and application to help. I look forward to speaking with you or your department.

#### References:

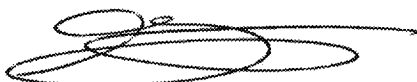
Kathleen "Casey" Hines – HUD NSP Rep = 734-732-3575

Jill Robinson – Michigan Land Bank Rep = 517-242-6944

Peter Agnello – Varsity Floors = 586-929-0680

- More available upon request

Thank you for your time and consideration,



Edward G. Wenz, Jr.  
Enclosure – Resume



# Edward G. Wenz, Jr.

---

## **EMPLOYMENT OBJECTIVE:**

To utilize my past experience & knowledge to gain personal growth & advancement in the construction field.

## **WORK EXPERIENCE:**

2010 – Present **Contractors Training Institute, LLC**

**Lead Renovator Training, LLC ~ Member / Trainer / Instructor**

**Michigan Builders Training, LLC & Builders Con-Ed, LLC**

**CTI – Consulting, Testing, & Inspections, LLC**

- Trainer for EPA Certified Renovator course, Mold Remediation, OSHA Safety, Asbestos
- Trainer of Lead Abatement Supervisor, Lead Inspector, Risk Assessor, Worker
- Trainer / Instructor for Michigan 60 Hr Builders Pre-Licensure Class & Builders Con-Ed
- Trainer for Asbestos Supervisor Contractor & Inspector Courses
- Built Online School for Contractor Training, Along with specialty websites & phone apps
- CTI-Consulting, Testing, & Inspections division of firm handling lead, asbestos, mold, & project management
  - Work for Macomb County Rehab program as rehab specialist, spec write, inspector
  - Work for Habitat For Humanity Macomb & Detroit as spec writer, rehab specialist, inspector, & lead inspector/lead risk assessor

1994 – Present **Winner Investment, Inc. ~ Owner**

- Established a property management company that currently owns and manages six (6) residential rental units throughout Macomb County. This firm owned and managed over 38 properties including commercials and residential apartments in previous years.
- Also, DBA Michigan Inspection Consultants, LLC; inspection & consulting services

May 2011 – Feb 2012 **City of Pontiac Federal Programs**

- Construction Manager / Rehab Specialist for Federal Programs HUD Grants & NSP
- Inspections of residential homes for code and write specification for all work, HOME Funds Implemented Programs for: Emergency Board-Up, Lawn ordinance mowing, Dumping clean-ups,
- Coordinated restart of NSP program for City to meet all HUD requirements, completed work that was on hold
- Demolition Program for Emergency & Scheduled demos, Coordinated all disconnects for water/sewer/electrical/gas for Michigan Land Bank NSP2 & CDBG. Along with surveying all water & sewer lines for mapping utilities for future use.

2006 – 2010 **Mini Dumpsters, LLC ~ Member**

- Established a waste & recycling firm = SOLD Firm
- Company was established with one dump trailer, when sold the business had 30 trailers, 18 roll off boxes, 3 trucks, 2 frontload trash trucks with revenue of \$500K per year

2003 – 2008 **~ Macomb County Rehabilitation Specialist I**  
**Dept. of Planning & Economic Development**

- Performed functions of Rehabilitation Specialist / Building Inspector
- Managed rehabs for Lead Inspection & Lead Risk Assessments on work for county.
- Designed and wrote county housing inspection report
- Wrote county rehab program contractor manual
- Trained contractors in work practices, lead work, & processes

1998 – Present **At Home Services, LLC ~ Owner**

- Established general contracting company for residential work. *Inactive.*

2003 – 2007 **RW Builders, LLC ~ Member**

- Established building & development partnership firm, building and renovating homes in Macomb, Oakland, & Wayne Counties. Company was dissolved as of December 2007.
- Built new homes as in fill lots in various cities
- Rehabbed homes in various city for flips

1996 – 2003      **Winner Properties, Inc. ~ Owner**

- Established a full service construction company, diversifying in new home construction, commercial build outs, gymnasium wood floor installs, rehabilitation work, design & build, home inspections, insurance reconstruction, lead paint and asbestos abatement. Trained employees' in work practices, install techniques, lead safe work practices, work safety training, fire safety, hazard communication plan, respiratory program, etc...
- Winner Properties was the largest Home depot installation firm in Michigan and surrounding states handling 33 stores in Michigan for door installation program. Our firm also wrote the Anderson Window install program for Home Depot.
- Winner Properties also worked for Home Depots EXPO Design Center Stores. Our firm handled 3 stores for installation of kitchens, bathrooms, tile, stone, complete remodel work and design build work.
- Winner Properties was the largest Lowes installation firm handling 6 stores in Metro Detroit market. Our firm handled the door installation program for all 6 stores, handled the plumbing install program for 3 stores, and handled installation of tile & cabinets for 3 stores.

**Other Work Experience:**

- Licensed Associate Realtor
- Truck driver to waste hauling firm - Went on to open my own business
- Owner of Towing & Recovery Service – Built & Established Company & then Sold company
- Owner of Spring & Suspension Shop – Built & Established Company & then Sold company
- Machine Repair Technician for Expert Machine Repair – Went out to open my own business

**SKILLS, LICENSES, CERTIFICATIONS:**

- Licensed Builder
- Certified Lead Abatement Supervisor
- Certified Lead Inspector & Lead Risk Assessor
- Certified Licensed Asbestos Supervisor Contractor
- Certified Licensed Asbestos Inspector
- State of Michigan Certified Lead Trainer (Worker, Supervisor, Inspector, Risk Assessor)
- State of Michigan Certified Asbestos Trainer (Supervisor / Contractor & Inspector)
- US Environmental Protection Agency EPA RRP Trainer
- State of Michigan Certified Builders Pre-License Trainer
- State of Michigan Certified Real Estate Continuing Education Trainer
- State of Michigan Certified Insurance Adjuster Continuing Education Trainer
- Trainer in OSHA, Mold, Lead, Builders Initial & Con-Ed Classes, Asbestos
- Lifetime Approval By State of Michigan as Trainer for State Building Officials, Inspectors, & Plan Reviewers
- OSHA 10 Hour Trained
- Certified Mold Remediation Specialist
- Certified Home Inspector
- Former Realtor
- Driver License = CDL-A – endorsements C, CY, NT

**VOLUNTEER AND COMMUNITY INVOLVEMENT:**

- Michigan HBA Remodelers Council = Presenter / Trainer
- Michigan Historical Preservation Network = Trainer / Consultant
- Member of St. Clair Shores Zoning Board of Appeals = *Previous*
- Compassionate Ministries / Building Construction Advisor = *Previous*
- Habitat For Humanity Macomb – Construction Supervisor = *Previous*
- Housing Opportunities for Macomb = *Previous*

## **Federal Programs Experience in HUD / NSP Work**

### **Macomb County Rehab Program – Rehabilitation Specialist**

- Inspect homes for rehabilitation program: building, plumbing, hvac, & electrical
- Inspect homes for both CDBG & HOME Funds for Code & HQS Standards
- Wrote the County Housing Rehabilitation Contractors Manual
- Updated the County Housing Rehab Manual
- SHPO Historical Section 1106 Clearances
- Environmental Reviews
- Wrote Specifications for work on homes – bring to code & emergency repairs
- Wrote specifications for lead abatement work / designed jobs
- Wrote estimates for all specifications on projects
- Ordered Lead Inspection & Risk Assessments as needed for projects
- Assessed projects for Lead Hazards and wrote specification for such work
- Met with homeowner to go thru work specifications and answered questions
- Inspected progress of work & final inspection of all work to meet specifications
- Completed final work on all homes and processed payments
- Wrote a complete rehab specification guide and put it into place for the County
- Designed a rehab tracking process and write up program for the County
- Ran projects for over 50 homes per year
- Projects ranged from rehabilitation, demo, and new build
- NSP Program: Worked to get basic acquisition and rehab outline established

### **City of Pontiac Federal Programs – Construction Manager**

- Wrote City Housing Rehabilitation Contractor Manual
- Updated / Revised the City Housing Rehab Manual
- Reviewed and worked for updating the Program Procurement Manual
- Wrote a complete rehab specification guide and put it into place for the City
- Designed a rehab tracking process and write up program for the City
- Organized and managed utility disconnects for demolition work. NSP & CDBG for City & NSP2 for MI Land Bank
- Worked with city on all water & sewer disconnects to be located and documented
- Organized and administered RFP's for: Rehab Contractors, Demo Contractors, NSP Developers, Realtor Services, Appraiser Services, Board Up Contractors, Lawn & Debris Clean-Up Contractors
- Bid Projects: Emergency Board Up Program, Lawn Mowing & Debris Clean Up Program, Rehab Program, Emergency Demo Program, 2012 Winter Demo Program, Asbestos Inspections, Lead Inspection & Risk Assessment Services
- Signed contract for Board Up Program & Managed over 350+ homes for board up
- Signed contract for Lawn & Debris Clean Up with 84 homes mowed, 1600 yards of debris removed
- Signed contract for Asbestos Inspections and administered over 200 sites
- Signed contract for Lead Inspection & Risk Assessment Services
- Inspected and wrote specs for 14 homes to satisfy HUD findings as a requirement to meet repairs for HUD
- Signed contracts for rehabilitation projects to repair homes required by HUD to clear findings – 14 sites
- Wrote Specs & Bid Emergency Demo Program; signed contracts with 6 contractors for work – demolished 20 homes in 10 days, completed work of 60 homes in 30 days
- Wrote Specs for 2012 Winter Demo Program – Pre-Bid Meeting held on 1/20 with 26 contractors, project is 150+
- Wrote / Revised Energy Upgrade specification for Lighthouse Path Bldg- Commercial Site
- Helped manage all SHPO applications for Historical Section 1106 Clearances on: Rehab & Demo work
- Worked with SHPO to add additional products to be listed as approved materials by State Architect to help have better specifications for rehab of homes.

- NSP Program:
  - Administration for: Acquisition Rehab, Demo, New Build
  - Managed & Signed for sale of properties for City to Developer
  - Administered & Managed all utility retirements / disconnect for Pontiac & Michigan land Bank
  - Revised specifications for NSP Developers to establish higher specifications = expectations
  - Worked to modify and help contractors get NSP 1 Program work done as the system was on hold
  - NSP Developers were guided to get projects back on track and now have done 19 homes in 6 months
  - Pontiac was on NSP slow spending list and now Pontiac is one of S/E Michigan top producers for HUD
  - City of Pontiac became top producing NSP Community in the last 6 months since Ed managed construction processes
  - Managed a huge Historical case and got clearance from SHPO in 30 minutes – 224 Ottawa, Pontiac
  - Managed Historical Sec 1106 Clearances for homes on NSP Program
  - Organized and managed RFP for Rehab Contractors for NSP 3 Program
  - Organized and managed RFP for Realtor Services for NSP Program
  - Wrote and managed RFP for Appraisal Services for NSP Program & sale of CDBG Property
  - Wrote & Bid out Specs for Alarm Systems on all NSP homes – Signed deal for developers
  
- CDBG & HOME Funds
  - Inspect homes for both CDBG, HOME Funds – Code & HQS Standards
  - SHPO Historical Section 1106 Clearances
  - Wrote specifications for work on homes – bring to code & emergency repairs
  - Wrote estimates for all specifications on projects
  - Ordered Lead Inspection & Risk Assessments as needed for projects
  - Met with homeowner to go thru work specifications answered questions
  - Inspected progress for work & final inspection of all work to meet specifications
  - Completed final work on all homes and processed payments

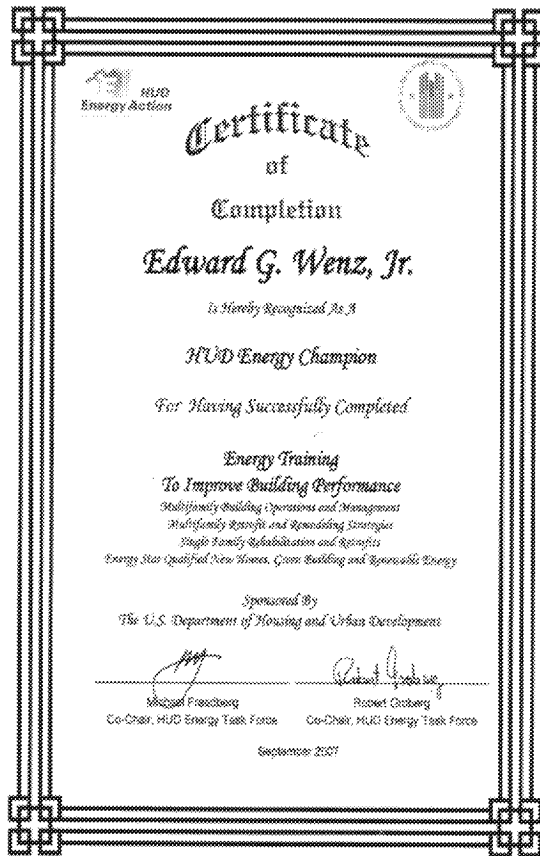
## Attachments – A

- Copy of Michigan Builders License

<small>ROCK SWYDER GOVERNOR</small>	<b>STATE OF MICHIGAN</b>	<b>L245595</b>
<b>DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS</b>		
<b>CORPORATIONS, SECURITIES &amp; COMMERCIAL LICENSING BUREAU</b>		
<b>RESIDENTIAL BUILDER LICENSE</b>		
EDWARD GILBERT WENZ, JR 8756 TRENTON DR WHITE LAKE MI 48386		
<small>PERMANENT I.D. NO. 2101186904</small>	<small>EXPIRATION DATE 05/31/2017</small>	<small>AUSTY NO 2801332</small>
<small>THIS DOCUMENT IS ONLY VALID UNDER THE LAWS OF THE STATE OF MICHIGAN</small>		

<small>ROCK SWYDER GOVERNOR</small>	<b>STATE OF MICHIGAN</b>	<b>L231721</b>
<b>DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS</b>		
<b>CORPORATIONS, SECURITIES &amp; COMMERCIAL LICENSING BUREAU</b>		
<b>RESIDENTIAL BUILDER COMPANY LICENSE</b>		
- O. O. - EDWARD GILBERT WENZ, JR      INDV#: 2101186904		
WINNER INVESTMENT INC DBA/ MICHIGAN INSPECTION CONSULTANTS 8756 TRENTON DR WHITE LAKE MI 48386		
<small>PERMANENT I.D. NO. 2102185620</small>	<small>EXPIRATION DATE 05/31/2017</small>	<small>AUSTY NO 2789605</small>
<small>THIS DOCUMENT IS ONLY VALID UNDER THE LAWS OF THE STATE OF MICHIGAN</small>		

## Attachment ~ B: Additional Training Certificates



**CUSTOMER TRAINING**

**Radiation Safety and Operation of Niton XRF Analyzers**

This is to certify that **Edward Wenz** has successfully completed the one day Thermo Fisher Scientific Niton Analyzer Manufacturer's Training Course. The topics of this course include radiation safety, monitoring, device operation, and machine maintenance of the Niton XRF Analyzer.

(CIH's - The ABIH Awards 1 CM point, approval # 08-354)

Course date: May 5, 2011  
Location: Romulus, MI  
Certificate Number: 154700380000017rVh0

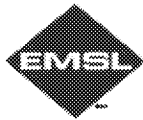
*Sophie Ling*  
Sophie Ling  
Radiation Safety Training Coordinator

*James Blute*  
James Blute, CHP  
Manager of Health and Safety

Thermo SCIENTIFIC



## Attachment ~ B: Additional Training Certificates



### EMSL ANALYTICAL, INC.

Certifies that

**Edward Wenz**

Has Completed Training In

**Mold, Indoor Air Quality and IH Sampling**

EMSL Certificate No. 70016695

Course Date: 98/11/2015

Granted: 98/11/2015

Sponsored by:

EMSL Analytical, Inc.  
200 Route 130 North  
Cinnaminson, NJ 08077  
Phone: (800) 220-3675  
Fax: (856) 786-5875  
[www.emsl.com](http://www.emsl.com)

**Jason Dobranic, Ph.D.**

Vice President of Microbiology and Life Sciences

Environmental, Mold, Bacteria, IAQ, Asbestos, Lead, Forensic and Materials Testing Since 1981



### EMSL ANALYTICAL, INC.

#### Credits and Continuing Education

Indoor Air Quality/Industrial Hygiene Workshop

on

8/27/15

ABIH-Compliant  
ACAC - 8.0 Credits  
BOMI - 8.0 Credits  
FL DBPR - 7 Credits  
HCRC - 1.0 Credit  
Inter NACHI - 8.0 Credits  
NAHI - 8.0 Credits  
ASHI - 8.5 Credits

CRBOH - 1 maintenance point  
NYS Dept of State Home Inspectors  
CRBOH - 1 MP  
NJ Site Remediation Professional Licensing  
Board - 4 TCEs  
NEHA - 6.5 CEC's  
TN Home Inspector Licensing Board - 8 hours

CAHPI  
OAH - 7 CEUs  
CAHPI/BC - 7 MRCs  
CAHPI Alberta - 7 MRCs  
Approved by Florida State  
DBPR 7 Credit Hours

Certificate # 70016695

Issued to: Edward Wenz

Environmental, Mold, Bacteria, IAQ, Asbestos, Lead, Forensic and Materials Testing Since 1981

## Attachment ~ C: Additional Certificates

United States Environmental Protection Agency

This is to certify that

Lead Renovation Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices pursuant to 40 CFR Part 402.107 in the following discipline:

Renovation, Refresher course (2 days)

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: October 27, 2015

NOT EPCB-100000-1-010  
Accreditation # OCT 14 2015  
Issued On

*Tony Bledsoe, acting for*  
Mark Klem, Chief  
Chemicals Management Branch

United States Environmental Protection Agency

This is to certify that

Lead Renovation Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices pursuant to 40 CFR Part 402.107 in the following discipline:

Renovation, Refresher course (2 days)

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: JUL 11, 2015

NOT EPCB-100000-1-010  
Accreditation # JUL 07 2012  
Issued On

*Mark Klem*  
Mark Klem, Chief  
Chemicals Management Branch

This is to attest that

has satisfactorily met the requirements of the Michigan Lead Abatement Act of 1995, and is hereby accredited as a

**Lead Renovator Training**

LEAD TRAINING COURSE PROVIDER

TCP number T-0049

This accreditation entitles the named persons to the rights and privileges afforded by the Act, as well as the authority to offer and provide the following training courses leading to certification of individuals engaged in regulated lead-based paint activities in the State of Michigan until August 31, 2016

Worker Initial	Worker Refresher	Supervision Initial	Supervision Refresher	Inspector Initial
Inspector Refresher	Risk Assessor Initial	Risk Assessor Refresher		

**MDHHS** Michigan Department of Health and Human Services

*Michael J. Blum*  
Manager, #921

August 21, 2015  
Date

20140821 0000  
Authority: P.A. 300 of 1975, as amended

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
CORPORATIONS, SECURITIES & COMMERCIAL LICENSING BUREAU

L263570

PROPRIETARY SCHOOL  
LICENSE

MICHIGAN BUILDERS TRAINING, LLC  
2525 AVON INDUSTRIAL DRIVE  
ROCHESTER HILLS MI 48309

PCB-ENVY 1.3.1. 60  
8404000877

10/15/2015 2015  
06/30/2015

4/2017 00  
2309466

THIS DOCUMENT IS NOT A MODEL  
DO NOT REPRODUCE OR DISTRIBUTE

Sponsor Number  
744307

Issue Date  
11/25/2015

Expiration Date  
12/31/2015

State of Michigan  
Department of Licensing and Regulatory Affairs

Michigan Builders Training, LLC

has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1995, as amended, and Section 206 of Title II of the Toxic Substances Control Act to provide the following courses:

Contractor/Supervisor Initial\* Inspector Refresher\*  
Contractor/Supervisor Refresher\*

1312

United States Environmental Protection Agency

This is to certify that

Lead Renovation Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices pursuant to 40 CFR Part 402.107 in the following discipline:

Renovation, Refresher course (2 days)

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: October 27, 2015

NOT EPCB-100000-1-010  
Accreditation # OCT 14 2015  
Issued On

*Tony Bledsoe, acting for*  
Mark Klem, Chief  
Chemicals Management Branch



## Attachments – D:

### ➤ Copy of Environmental Licenses

**Michigan**  
Department of  
Community  
Health

**Edward G. Wenz Jr.**  
**Lead Inspector/Risk Assessor**  
**Lead Supervisor**

Cert. number **P-011130**

Annual fee due by **March 31, 2016**

*Appropriate refresher training and exam must be taken to renew this certification before March 31, 2016*

**Healthy Homes Section**

**State of Michigan**  
Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Inspector**

**Edward G. Wenz, Jr.**  
8756 Trenton Drive  
White Lake, MI 48386

Accreditation Number **A42527** Expiration Date **04/05/2016** DOB: **01/08/1966**

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1986, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered **114769**

**State of Michigan**  
Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Contractor/Supervisor**

**Edward G. Wenz, Jr.**  
8756 Trenton Drive  
White Lake, MI 48386

Accreditation Number **A42527** Expiration Date **04/05/2016** DOB: **01/08/1966**

This individual has satisfactorily met or exceeded the requirements of Section 205 of the Toxic Substances Control Act to be accredited in the above discipline.

Accreditation card is not valid if altered **114770**

**OSHA** Occupational Safety and Health Administration

21-004444959

This card acknowledges that the recipient has successfully completed a 10-hour Occupational Safety and Health Training Course in **Construction Safety and Health**

**EDWARD WENZ, JR.**

**Bryan Renaud** 06/12/2013

(Trainer name – print or type) (Course end date)

**Michigan Department of Licensing and Regulatory Affairs**  
**Michigan Occupational Safety and Health Administration**  
**Consultation Education and Training Division**

This is to recognize that

**EDWARD WENZ, JR.**

Has completed a 10-Hour MIOSHA course in **CONSTRUCTION SAFETY AND HEALTH**

**Bryan Renaud** Approval # **AP 147** 6/12/13 (Instructor) (Date)

**LARA**

**MIOSHA**  
**Training Institute**

**MIOSHA** Macomb Community College

The MIOSHA Training Institute takes pleasure in presenting this **CERTIFICATE OF ATTENDANCE** to

**EDWARD WENZ, JR.**

for your active participation in **MIOSHA Construction 10-Hour Course**

awarding 1 CEU / 10 Contact Hours  
**JUNE 12, 2013**

**PATRICIA DUPRESNE** **BRYAN RENAUD**  
Trainer Signature Trainer Signature



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
BUREAU OF CONSTRUCTION CODES  
IRVIN J. POKE  
DIRECTOR

STEVEN H. HILFINGER  
DIRECTOR

April 2, 2012

**\*\*Lifetime Instructor Approval\*\***

Mr. Edward G. Wenz, Jr.  
8756 Trenton Drive  
White Lake, MI 48386

Dear Mr. Wenz:

Your application to renew your Instructor Approval has been processed by the Bureau of Construction Codes.

Pending review by the Construction Code Commission, the Bureau of Construction Codes has been granted permission to renew your approval under the following conditions:

1. Instructor standards as defined in the Rules for Act 54, 1986 are maintained.
2. Approval is granted indefinitely for the following categories: Administration, Communication, Plan Review, and Building (Specialty and Technical specific to lead, asbestos and mold related subjects).
3. The commission may withdraw the approval of an instructor when the approval was issued in error or was issued on the basis of incorrect information or when the instructor is found to be in violation of the rules.

The standards set forth in the rules for Act 54, 1986, state that program providers must "establish permanent records of student activities, including course title, and student attendance." Instructors have the responsibility for certifying attendance records. All participants must attend the entire program to receive credit.

**PLEASE NOTE:** Training programs must be approved by the Bureau of Construction Codes before registrants will receive their credited attendance hours. Before conducting training programs, a completed Education and Training Programs Approval Application (Form BCC-1052) must be submitted and approved by the Bureau of Construction Codes. Our attendance form can be found on our website at [www.michigan.gov](http://www.michigan.gov) under Forms then Building Division.

Instructor Identification Number: 2019

Sincerely,

*Kary L. Dare*

Kary L. Dare  
Building Division

KLD/ld

*Providing for Michigan's Safety in the Built Environment*

LARA is an equal opportunity employer  
Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.  
P.O. BOX 30254 • LANSING, MICHIGAN 48908  
[www.michigan.gov/bcc](http://www.michigan.gov/bcc) • Telephone (517) 241-8302 • Fax (517) 241-9570



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
LANSING

STEVE ARWOOD  
DIRECTOR

February 15, 2013

Michigan Builders Training, LLC  
Edward G. Wenz Jr.  
2230 Avon Industrial Dr  
Rochester Hills, MI 48309

Dear Mr. Wenz:

RE: **Sponsor #480**

Your application as a sponsor for the 2013-2015 Calendar Years for real estate nondistance-learning continuing education has been approved. This approval begins on February 14, 2013 and expires on December 31, 2015. **The sponsor approval number above is important and must be referenced in ALL correspondence with the Department.** The following course(s) have been approved:

Course Name	Hours	"L" Course Number
Combo Lead, Asbestos, Mold Awareness	4hrs	M1474
OSHA Fall Protection	2hrs	M1475
EPA Certified Lead Renovator	4hrs	M1476
Mold Awareness -- What you should know	2hrs	M1477
OSHA Lead Awareness	2hrs	M1479
Asbestos Awareness	2hrs	M1478

This approval includes Edward Wenz as instructor(s).

A Schedule and Geographic Location of Classes BCS/LRE-004(01/09) must be submitted before you submit your verification of attendance. Sponsors must submit verification of attendance no later than 5 days after the completion of the course, per Rule 604(8).

Electronic filing of your continuing education course attendance roster file must be a tab delimited text file or an excel file that can be exported from any database you have.

You can find the Schedule and Geographic Location of Classes and Verification of Attendance excel spreadsheet on our website at [www.michigan.gov/bctestesting](http://www.michigan.gov/bctestesting) under the forms drop down menu. If you have any questions, please contact me at (517) 241-9231. Thank you for your cooperation.

LARA is an equal opportunity employer/program.  
Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

BUREAU OF COMMERCIAL SERVICES  
P.O. BOX 30018 • LANSING, MICHIGAN 48909  
[www.michigan.gov/lara](http://www.michigan.gov/lara)

FIS 414 (12/11) Department of Insurance and Financial Services

**Certificate Of Registration For A Continuing  
Education Program Of Study**

PSI  
Michigan CE  
3210 E. Tropicana  
Las Vegas, NV 89121

September 18, 2013

MICHIGAN BUILDERS TRAINING, LLC  
EDWARD G WENZ JR  
8756 TRENTON DRIVE  
WHITE LAKE, MI 48386

Edward Wenz:

Pursuant to Section 1204a(1) to 1204c(6) of the Insurance Code of 1956, as amended, MCLA 500.1204a(1) to 500.1204c(6), the Agent Education Advisory Council or its designee has reviewed the course materials, curriculum, and instructor credentials submitted and recommends to the Director's representative that this program of study be registered:

Course Name: **UNDERSTANDING THE HAZARDS OF HOUSING - COMBO LEAD, ASBESTOS, & M**

Program of Study: **Property & Casualty**

Effective Date: **09-18-2013**

Number of Approved Hours: **3**

Provider Number: **0979**

Life/Health **0**

Property/Casualty **3**

Presentation Method: **Classroom**

Course Number: **63228**

National Designation Program: **No**

Expiration Date: **09-18-2015**

By the granting of this Certificate of Registration, the Director's representative approves the recommendation. The Director may, after Notice and Opportunity for a Hearing, withdraw the registration of a program of study, which does not maintain standards as determined by the Director for the protection of the public. Sales/Marketing hours = 0.

If you disagree with our decision, you may appeal by providing 2 copies of the requested information within 30 days of the date of this letter without any additional fees. However, if you appeal our decision, you must return this document and you may not offer this course until a final disposition is granted.

If you need to contact PSI, please email [MIINSURANCE@PSIEXAMS.COM](mailto:MIINSURANCE@PSIEXAMS.COM).

Sincerely,

PSI Continuing Education Unit



Michigan Department of Insurance and Financial Services

DIFS is an equal opportunity employer/program.

Auditory aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

Visit DIFS online at: [www.michigan.gov/difs](http://www.michigan.gov/difs) Phone DIFS toll-free at: 877-999-6442

---

**From:** Stoken, Laura (GOV)  
**Sent:** Monday, February 01, 2016 2:39 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Disaster Recovery Resilience Program

For your determination

---

**From:** Norman Stoerr [<mailto:nstoerr@aidrc.com>]  
**Sent:** Monday, February 01, 2016 2:36 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Cc:** Norman Stoerr <[nstoerr@aidrc.com](mailto:nstoerr@aidrc.com)>  
**Subject:** Disaster Recovery Resilience Program

Good afternoon Lt. Governor Calley,

I'm contacting you to provide you information concerning Adjusters International's Disaster Recovery Resiliency Program.

In 2010, The Department of Homeland Security (DHS) identified resiliency as a national priority. DHS intended to reduce the risk to critical infrastructure, public health and safety by fostering development of preparedness capabilities able to recover from naturally or man-made disasters to the nation's states and cities. Presidential Policy Directives 8 and 21 fully endorse this high level initiative.

Adjusters International (AI) can provide you a Disaster Recovery Resilience Program. Our web-based interoperable, multiple activation program, will assist the state in building a pro-active, readiness, response, recovery, and mitigations program for your state and counties.

AI's program can provide you a detailed risk analysis of the state's resources. Our program will also monitor your resource allocation of personnel, equipment and facilities not only on a daily basis, but also during an emergency situation or activation. The program provides this support using its GIS and real time situational analysis capability. AI's Disaster Recovery Resiliency Program will also guide a municipality, city or county from the initiation of an emergency response, through the closeout of a disaster declaration.

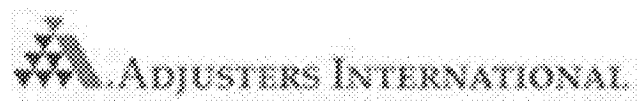
At your convenience, we would like the opportunity to speak with you and or members of your staff to further explain the Disaster Recovery Resilience Program.

Please contact me on the number or e-mail listed below to schedule a GoToMeeting. We will show you some features and further explain the benefits of our program.

Thank you very much sir,

*Norman T. Stoerr  
Disaster Recovery Resiliency Program  
Adjusters International DRC  
125 Wolf Road-Suite 214  
Albany, New York 12205  
Cell: 716-432-9414*

*E-mail: [nstoerr@aidrc.com](mailto:nstoerr@aidrc.com)*



C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

January 29, 2016

Honorable Rick Snyder, Governor Michigan

Honorable Dr. Karen Weaver, Mayor

Honorable Elder Patrick W. Sanders, Pastor New Jerusalem Full Gospel Baptist Church

Greetings,

One of the most forgotten tools in optimizing effective public health strategies is Risk Communications. C. Edwards Concepts Public Health and Development Consulting LLC a nationally recognized leader in comprehensive Public Health consultation is fully qualified and experienced in multiple areas of Risk Communication Disease Intervention and Community Health. Since 2002 we have provided design, development and implementation services for local state and federal governments, non-governmental organizations, and community based organizations, and academic institutions. I am writing in hopes of securing an opportunity to discuss the provision of services for Public Health Consulting including but not limited to Education Awareness and Risk Reduction relative to lead contaminated water in Flint Michigan.

In the area of Risk Communication we have developed epidemiology influenced programming for disease intervention, risk assessment and risk reduction counseling testing referral and health services navigation.

From a strategic platform of Outreach and Engagement we have affected communities of color and beyond with measurable health outcome improvements by employing culturally and population sensitive strategies for Community Planning Health Promotions and Health Protection for successfully implementing Community Health initiatives.

In the area of Environmental Health our founding director is an Environmental Health Policy major and graduate of Tulane University School of Public Health and Tropical Medicine. In addition to her own studies she has also served as a Visiting Professor at the University of Nevada Las Vegas in the Division of Environmental Studies instructing Environmental Impact Analysis, Survey of the Environment, and Environmental Science. This serves as the foundation for both the experience and the expertise we have gained in the promotion of Health Safety and Environmental practices. We have developed and implemented worker safety training for Environmental Remediation projects licensed in the states of Louisiana and Nevada and in October 2013 entered into a three year contract with the University of Texas at Arlington Environmental Training Institute for the development of their curriculum for their Environmental Toxicology and Health Impacts course.

SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

The exceptional capacity and breadth of C. Edwards Concepts' skills and professional acumen is well documented. We are committed, well trained, and well able to help diverse stakeholders with varied interest. We have a working knowledge of the Clean Water Act and the Lead and Copper Rule which strengthens our ability to assess environmental and social risk factors in health related and environmental decision making processes.

Please afford me an opportunity to further discuss our organizations ability to serve as a valued resource for the City of Flint as it works to recover from this Public Health crisis. I will contact you on or before Tuesday February 2, 2016 as a follow up to this correspondence. Should you wish to reach me prior to that time you are welcome to do so at 318.519.4802 or via email: [charletteedwards@gmail.com](mailto:charletteedwards@gmail.com). Thanks so much for your consideration I look forward to speaking with you and serving your community. With kind regards I am ...

Committed to Health and Wellness

*Charlette Edwards*

Charlette Edwards, MSPH



C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

CHARLETTE EDWARDS, MSPH  
Shreveport, LA 71107 [Charletteedwards@gmail.com](mailto:Charletteedwards@gmail.com) 318.519.4802

**Summary**

For more than 25 years, I have been successfully involved in the work of problem resolution. Via Administrative remedy, I have worked with agencies under the auspices of the federal government applying rules codified by the Codes of Federal Regulation and Revised Statutes from various states. To this end, I have attained an uncanny ability to establish, develop and maintain outstanding rapports with persons from various backgrounds and diverse cultures. This ability is only surpassed by my never-ending commitment to (1). Facilitate the accomplishments of my organizations described goals (2). Provide assistance in designing strategic plans of action to satisfy determined objectives (3). Utilize and employ, clear, decisive, leadership abilities needed to complete specific task or multifaceted problems.

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New Orleans, LA

**Master's of Science in Public Health**, 2000  
Environmental Health Sciences Major

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**Relevant Experience:**

**National Science Foundation – Wiley College**  
Marshall, Texas  
**STEM Project Manager**

- Provide technical guidance and assistance relative to scientific program planning

SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

- Develop operational plans for creation, implementation and evaluation of program activities
- Serve as liaison to the community, academia, and governmental agencies representing STEM program

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Arlington, Texas

**Environmental Consultant**

- Curriculum Development
- Instructional Design
- Serve as subject matter expert in Environmental Toxicology and Health Impacts

**University of Nevada Las Vegas**

Las Vegas, Nevada

**Visiting Professor**

- Provide instruction in Environmental Sciences
- Develop course syllabi and supporting course materials
- Evaluate student mastery of skills and competencies required by course outcomes.

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- Developed Health and Safety Training Course for Construction Workers
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**Environmental Policy Intern**

- Designed municipal efforts to network with community and its' leaders
- Implemented public awareness programs relative to emissions, recycling and household chemicals
- Developed of medical monitoring model and program for the city of New Orleans

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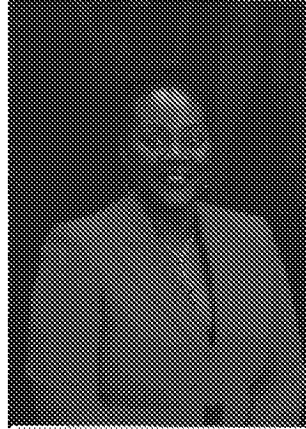
Carol Smith Peterson, B.S., R.N. – Nurse Care Manager

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CONTACT:

CHARLETTE EDWARDS, MSPH

1545 LINE AVE. SUITE 211

SHREVEPORT, LOUISIANA 71101

318.519.4802

CHARLETTEEDWARDS@GMAIL.COM

---

**From:** Stoken, Laura (GOV)  
**Sent:** Monday, February 01, 2016 2:45 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Public Health Consulting  
**Attachments:** C Edwards Concepts Portfolio Dr. Karen Weaver.pdf

For your determination

**From:** Charlette Edwards [<mailto:charletteedwards@gmail.com>]  
**Sent:** Monday, February 01, 2016 1:15 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>; [mayor@cityofflint.com](mailto:mayor@cityofflint.com); [elidersanders@att.net](mailto:elidersanders@att.net)  
**Cc:** [saunder1@michigan.gov](mailto:saunder1@michigan.gov); Charlette Edwards <[charletteedwards@gmail.com](mailto:charletteedwards@gmail.com)>  
**Subject:** Public Health Consulting

Greetings,

With more than 25 years of professional experience spanning Politics, Administrative Law, and Public Health, I write you in hopes of securing an opportunity to serve you and your community through the provision of Public Health, Community Outreach and Risk Communications services.

Your consideration is greatly appreciated. Charlette Edwards

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

January 29, 2016

Honorable Rick Snyder, Governor Michigan

Honorable Dr. Karen Weaver, Mayor

Honorable Elder Patrick W. Sanders, Pastor New Jerusalem Full Gospel Baptist Church

Greetings,

One of the most forgotten tools in optimizing effective public health strategies is Risk Communications. C. Edwards Concepts Public Health and Development Consulting LLC a nationally recognized leader in comprehensive Public Health consultation is fully qualified and experienced in multiple areas of Risk Communication Disease Intervention and Community Health. Since 2002 we have provided design, development and implementation services for local state and federal governments, non-governmental organizations, and community based organizations, and academic institutions. I am writing in hopes of securing an opportunity to discuss the provision of services for Public Health Consulting including but not limited to Education Awareness and Risk Reduction relative to lead contaminated water in Flint Michigan.

In the area of Risk Communication we have developed epidemiology influenced programming for disease intervention, risk assessment and risk reduction counseling testing referral and health services navigation.

From a strategic platform of Outreach and Engagement we have affected communities of color and beyond with measurable health outcome improvements by employing culturally and population sensitive strategies for Community Planning Health Promotions and Health Protection for successfully implementing Community Health initiatives.

In the area of Environmental Health our founding director is an Environmental Health Policy major and graduate of Tulane University School of Public Health and Tropical Medicine. In addition to her own studies she has also served as a Visiting Professor at the University of Nevada Las Vegas in the Division of Environmental Studies instructing Environmental Impact Analysis, Survey of the Environment, and Environmental Science. This serves as the foundation for both the experience and the expertise we have gained in the promotion of Health Safety and Environmental practices. We have developed and implemented worker safety training for Environmental Remediation projects licensed in the states of Louisiana and Nevada and in October 2013 entered into a three year contract with the University of Texas at Arlington Environmental Training Institute for the development of their curriculum for their Environmental Toxicology and Health Impacts course.

SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

The exceptional capacity and breadth of C. Edwards Concepts' skills and professional acumen is well documented. We are committed, well trained, and well able to help diverse stakeholders with varied interest. We have a working knowledge of the Clean Water Act and the Lead and Copper Rule which strengthens our ability to assess environmental and social risk factors in health related and environmental decision making processes.

Please afford me an opportunity to further discuss our organizations ability to serve as a valued resource for the City of Flint as it works to recover from this Public Health crisis. I will contact you on or before Tuesday February 2, 2016 as a follow up to this correspondence. Should you wish to reach me prior to that time you are welcome to do so at 318.519.4802 or via email: [charletteedwards@gmail.com](mailto:charletteedwards@gmail.com). Thanks so much for your consideration I look forward to speaking with you and serving your community. With kind regards I am ...

Committed to Health and Wellness

*Charlette Edwards*

Charlette Edwards, MSPH

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

CHARLETTE EDWARDS, MSPH  
Shreveport, LA 71107 [Charletteedwards@gmail.com](mailto:Charletteedwards@gmail.com) 318.519.4802

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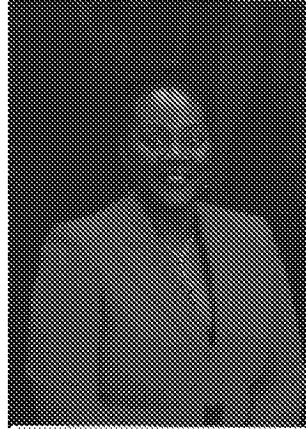
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SHREVEPORT, LOUISIANA 71101

318.519.4802

CHARLETTEEDWARDS@GMAIL.COM

---

**From:** Baird, Richard (GOV)  
**Sent:** Monday, February 01, 2016 11:10 PM  
**To:** Sachs, Tori (GOV); Creagh, Keith (DEQ)  
**Subject:** Fwd: Fw: Message from Dennis Cawthorne

These keep coming out of the woodwork. I wonder if we have/need someone from Keith's team separating the "wheat from the chaffe".

Rich

*Sent from my Verizon Wireless 4G LTE DROID*

----- Forwarded message -----

From: Dennis Cawthorne <[DCawthorne@kelley-cawthorne.com](mailto:DCawthorne@kelley-cawthorne.com)>  
Date: Feb 1, 2016 1:45 PM  
Subject: Fw: Message from Dennis Cawthorne  
To: "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>  
Cc: [rbaird003@hotmail.com](mailto:rbaird003@hotmail.com)

Rich:

I copied Vogel-Brown on our correspondence and here is their latest response. Note the second paragraph in which they again say their receiving a "Lab Report" would be helpful.

I presently have no vested interest in what Vogel-Brown is proposing but, from the outside, their potential ability to provide near term drinkable, clean water appears interesting and perhaps merits your team's interest, as well.

Dennis Cawthorne

---

**From:** Richard Brown <[rbrown@vogelandbrown.com](mailto:rbrown@vogelandbrown.com)>  
**Sent:** Saturday, January 30, 2016 5:22 PM  
**To:** Dennis Cawthorne  
**Subject:** RE: Message from Dennis Cawthorne

Dear Dennis,

This is great; now we need to come through. It sounds as though they've put a "Tiger Team" in place and just getting organized.

I have our engineers working on the concept that is focused on near term provision of drinkable, clean water. The lab report will ensure we're proposing the correct solution. There are several ways we can go about this, but I propose a Demo as a Proof of Concept to show that our system actually works.

We still have not been able to contact our large scale engineer/patent holder, but as soon as we do I'll let you know where we stand and a proposed schedule.

I'm also in contact with one of our associate contractors that does large scale epoxy coating of water pipes without have to remove or did them up. I should have more on them Monday.

Thanks for your support.

Richard Brown

---

**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, February 02, 2016 8:39 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** Company

For your determination

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**From:** info [mailto:info@rcunique.com]  
**Sent:** Monday, February 01, 2016 8:02 PM  
**To:** Stoken, Laura (GOV) <Stokenl@michigan.gov>  
**Subject:** Re: Re: RE: Executive Office of the Governor

Dear Laura ,

I read online that the plumbers union were helping all the flint residents changing faucets and install filters .pls note that we can provide our equipment and technique support for free for flint residents ,but we will need the plumber union to do the cleaning process ,waiting for your reply .thanks

2016-02-01

---

**Best regards!**

**Melia Tang**

**19295 E .Walnut Dr.North #H**  
**City of Industry.Los Angeles.CA 91748**  
**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: [www.rcunique.com](http://www.rcunique.com)**  
**Email:info@rcunique.com**

---

发件人 : "info" <[info@rcunique.com](mailto:info@rcunique.com)>  
发送时间 : 2016-02-01 11:41  
主题 : Re: RE: Executive Office of the Governor  
收件人 : "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
抄送 :

Dear Laura ,

Thanks for your reply .please take a looking in our website .we are speciallize in clean water pipes for residents area .with our technology ,each single house will take around 2-3 hours to clean up all the pipes lines .no need any repipe or construction .right now we still serve Los Angeles .but if you need our help .we can certainly send someone to Flint city to help you .i think you are aware that the faucet filter won't be working so well if the residents still have dirty water pipes .they still can't get clean water for shower and other daily usage water as well .

please take a look in a website .and let me know how we can help .thanks

[www.rcunique.com](http://www.rcunique.com)

2016-02-01

**Best regards!**

**Melia Tang**

**19295 E .Walnut Dr.North #H**  
**City of Industry.Los Angeles.CA 91748**  
**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: [www.rcunique.com](http://www.rcunique.com)**  
**Email:info@rcunique.com**

---

发件人 : "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>

发送时间 : 2016-02-01 11:31

主题 : RE: Executive Office of the Governor

收件人 : "info" <[info@rcunique.com](mailto:info@rcunique.com)>

抄送 :

Thank you Melia,

Please provide specific details so I can forward it to the appropriate person at the State Emergency Operations Center for review.

Thank you,

Laura

---

**From:** info [<mailto:info@rcunique.com>]

**Sent:** Monday, February 01, 2016 2:22 PM

**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>

**Subject:** Re: Executive Office of the Governor

Dear Laura,

Thanks for your reply ,the reason I am contacting you is that I think my company can help the governor with this issue in the final stage .for flint water,there are still few steps to solve the issue .first,you government need to provide clean water source ,second ,you will need to repipe or clean all those corroded water pipe lines .third stage ,we may be able to help with our technology .as we all know how long and how expensive it is gonna take for repiping for each house ,if the water pipes are not so corroded ,we are able to clean the water pipes for residents .in this way ,they will get your clean water .let me know how you think about it ,I am waiting for your further reply .thanks .

2016-02-01

---

**Best regards!**

**Melia**

**19295 E .Walnut Dr.North #H**

**City of Industry.Los Angeles.CA 91748**

**Tel:626 964 6612**

**Fax:626 964 6609**

**Web: www.rcunique.com**

**Email:info@rcunique.com**

---

**发件人 :** "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>

**发送时间 :** 2016-02-01 11:11

**主题 :** Executive Office of the Governor

**收件人 :** "Melia T" <[info@rcunique.com](mailto:info@rcunique.com)>

**抄送 :**

Dear Melia T,

Thank you for your recent correspondence sent to Governor Rick Snyder. As a member of Governor Snyder's staff, I am responding on his behalf.



The health and welfare of Flint residents is the top priority. Governor Snyder's focus is on getting residents the help they need and the response they deserve. He wants to ensure Flint residents have access to clean, safe drinking water. Safe water as well as filters are being delivered door to door and are also available at designated locations throughout the city.

The Governor created a bipartisan, independent task force to review all state, city and federal actions concerning Flint water and making recommendations for the future. We're focused at solving the immediate problems, and also addressing long-term needs. The Flint Water Interagency Coordinating Committee will bring together a wide range of experts to work on long-term solutions to the Flint water situation and ongoing public health concerns affecting residents.

Governor Snyder declared a state of emergency, requested federal assistance, and activated the Michigan National Guard. President Obama granted an emergency declaration, providing \$5 million for water, water filters, filter replacements and water test kits. Congress can approve additional funding. The Governor had also requested from the President a major disaster declaration, which was denied based on the legal requirement that under the Stafford Act disaster relief is available only for natural events, fires, floods, or explosions. The state is now appealing the disaster declaration denial.

The top priority of response efforts is to ensure residents have access to safe, clean drinking water. Residents should install filters to their taps to ensure they have immediate, ongoing access to safe water. It is important to follow installation and maintenance instructions for filters and replacement cartridges. There are five water resource centers, open seven days a week from 9 a.m. to 9 p.m. at Flint fire stations. There are water resource teams going door-to-door to ensure every resident has a water filter and additional water resources.

- If you want to donate or volunteer to help the people of Flint, visit: [www.helpforflint.com](http://www.helpforflint.com).

Since the Governor's emergency declaration we have distributed 207,055 cases of bottled water, nearly 37,342 filters, and 30,801 water testing kits. When installed and maintained properly, water filters remove 99 percent of lead in water. Residents are urged to use filtered water for drinking, food preparation, brushing teeth and watering pets. Unfiltered water may be used for bathing and cleaning.

For a Flint Water timeline, please visit [CLICK HERE](#).

Friday, January 29 Governor Snyder signed legislation bringing \$28 million to immediately help families in Flint with lead testing, treatment and other emergency services. The funding was part of a multi-point relief package the governor outlined last week during his state of the state address to the Michigan Legislature.

This is the second emergency supplemental funding bill allocated to assist the city of Flint this fiscal year. A previous \$9.3 million package was approved in October 2015 to reconnect Flint to the Detroit Water and Sewerage Department, provide filters and water testing to residents, aid in follow-up health services for children and assist with plumbing inspections at schools and health facilities.

House Bill 5220, sponsored by state Rep. Phil Phelps and approved unanimously in both the House and Senate will help ensure Flint residents have access to safe, clean drinking water while helping to do the following:

- Supply free bottled water, faucet filters, and testing kits for Flint residents;
- Put nine nurses in local schools to monitor student health and well-being;
- Provide better nutrition for students and infants through WIC and in-school nutrition programs;
- Replace fixtures in schools, daycares, nursing homes and hospitals;
- Provide for an infrastructure study using independent experts;
- Treat any children who have high lead levels in the blood, using diagnostic testing, nurse visits and environmental assessments in the home;
- Provide additional community education opportunities within the Genesee County Health Department;
- Compensate the Michigan National Guard's work to support water distribution;
- Assist with home lead abatement costs;
- Help the City of Flint with utility issues;
- Provide operational funding for the Flint Interagency Advisory Committee.

The funding bill totals \$28 million with \$22.6 million from the general fund. The remaining \$5.4 million comes from a combination of federal and restricted funds. It is now Public Act 3 of 2016.

Governor Snyder will propose a long-term funding solution to address the ongoing needs of Flint in his Feb. 10 formal budget recommendation. Long-term health monitoring for children exposed to the water and potential replacement of water infrastructure and service lines will be addressed through the governor's traditional budget recommendation, which will be shared on Feb. 10.

We will continue to work to improve the water situation in Flint. Community members and local officials are working together to make sure we hear and respond to concerns.

Thursday, January 28 a plan to recycle the thousands of plastic bottles being distributed during the Flint water crisis. The plan includes drop-off sites for recyclables and increased promotion of the curb side pickup already offered to Flint residents. [To learn more about the recycling plan in Flint, click here.](#)

For updates, please visit [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater).

Thank you, again, for taking the time to share your concerns with our office. Should you have any further comments, questions or concerns regarding this or any other state-related matter, I've included my contact information below.

Sincerely,

Laura Stoken  
Constituent Relations Division  
Executive Office of the Governor, Rick Snyder  
517.335.7858 (o)

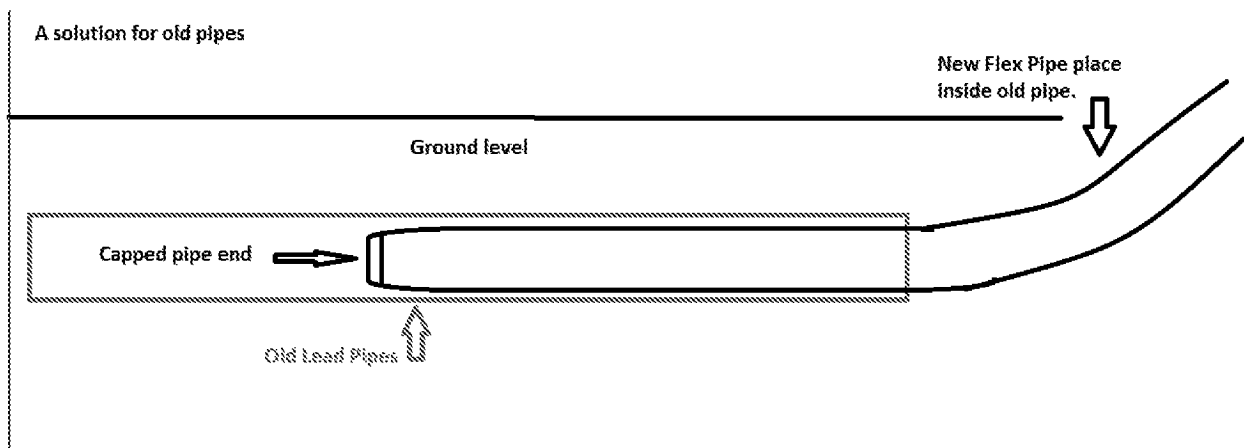
Greetings;

While I am not an engineer I have come up with a solution for the Flint water line replacement issues. The concept came from remembering how new natural gas lines were being placed this past summer. The lines had a flex to them and where placed in holes bored at an angle underground the running horizontally.

Using a similar concept use a flex pipe that is smaller than the inside diameter of the old pipe. the end that is inserted is capped to protect the inside of the new pipe while it is sliding the old pipe.

This concept can be used for main and feeder lines.

See Diagram below for example:



It is my belief that this would greatly reduce the time and expense needed to repair and or replace the old toxic water lines. The slightly smaller lines will slightly reduce the rate of flow but the speed which it could be greater than digging up the old lines.

Please consider this as a quicker solution to the issue that has arisen in Flint.

Brian Storace  
Owosso,MI

---

**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, February 02, 2016 10:08 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint Water solution suggestion  
**Attachments:** flint pipe solution.pdf

For your determination

---

**From:** B Storace [mailto:[brs2home@yahoo.com](mailto:brs2home@yahoo.com)]  
**Sent:** Friday, January 22, 2016 3:51 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Subject:** Fw: Flint Wat solution suggestion

2nd attempt first was kicked back

----- Forwarded Message -----

**From:** B Storace <[brs2home@yahoo.com](mailto:brs2home@yahoo.com)>  
**To:** "brian.calley@michigan.gov" <[brian.calley@michigan.gov](mailto:brian.calley@michigan.gov)>  
**Sent:** Wednesday, January 20, 2016 8:13 PM  
**Subject:** Flint Wat solution suggestion

Mr. Calley;

The share an opinion system was not working tonight for Govenor Snyder. I was trying to pass a long a solution I came up with for the toxic Flint pipes. I have a PDF attached explaining the solution. If you coould please pass it along to anyone who will find it useful it solving the issues.

Best regards  
Brian Storace  
1709 N. M 52  
Owosso, MI 48867

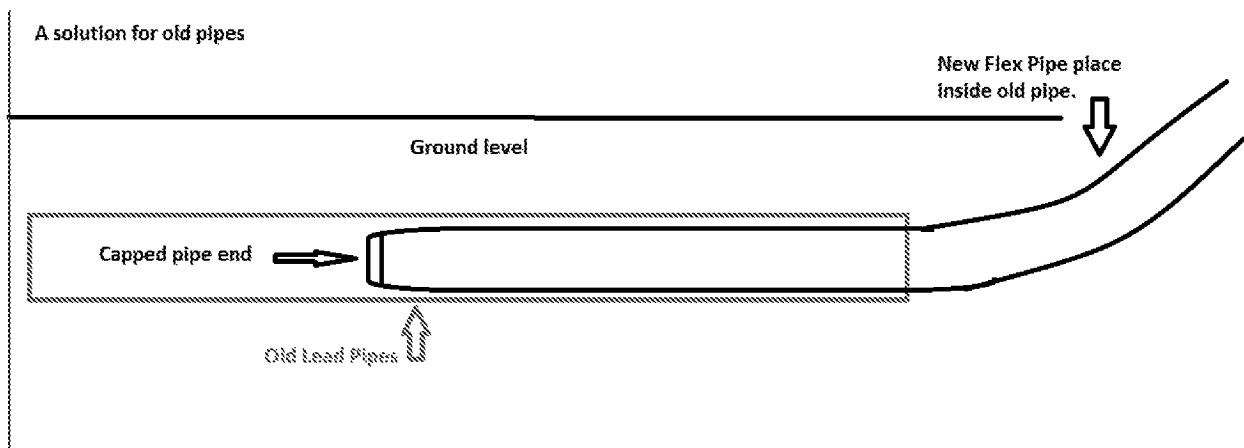
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**From:** McBride, Bill (GOV)  
**Sent:** Tuesday, February 02, 2016 1:06 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: IBWA Letter for Governor Snyder  
**Attachments:** Snyder Flint letter 012916.pdf

---

**From:** James Toner [<mailto:JToner@bottledwater.org>]  
**Sent:** Monday, February 01, 2016 7:46 AM  
**To:** McBride, Bill (GOV) <[mcbrideb@michigan.gov](mailto:mcbrideb@michigan.gov)>  
**Subject:** IBWA Letter for Governor Snyder

Bill,

I hope this finds you well and that you are holding up with everything going on regarding Flint. It's been a while since we have talked but I was always impressed with all the individuals in Governor Snyder's office that cover water issues. So, I imagine you have things well in hand.

I wanted to get this letter from IBWA to the Governor to let him know the bottled water industry is doing all we can and we stand ready to assist in any way possible moving forward.

Please let me know if you have any questions or if I can be of further assistance.

JP

James P. Toner, Jr.  
Director of Government Relations  
International Bottled Water Association (IBWA)  
1700 Diagonal Road  
Suite 650  
Alexandria, Virginia 22314  
703.647.4616 Direct  
703.683.5213 Main  
703.683.4074 Fax

Follow IBWA on





1700 Diagonal Road, Suite 650  
Alexandria, VA 22314  
Ph: 703-683-5213  
Fax 703-683-4074  
Web: [www.bottledwater.org](http://www.bottledwater.org)

January 29, 2016

The Honorable Rick Snyder  
Governor of Michigan  
P.O. Box 30013  
Lansing, MI 48909

Dear Governor Snyder,

The International Bottled Water Association (IBWA) would like to take this opportunity to offer our assistance to you and your administration in responding to the recent water emergency in Flint, Michigan. Our members are very familiar with the logistics of responding to events such as natural disasters, water main breaks, and other incidents that can compromise public water systems. IBWA therefore appreciates the recent efforts undertaken by the state, the city of Flint, and third parties to ensure that citizens receive clean, potable water during this significant crisis. Over the years, IBWA has had several opportunities to discuss various water issues with your staff and we have always been impressed with their knowledge and understanding of critical water infrastructure matters.

The bottled water industry is always there to help during a natural disaster or other emergency situation. And every year, IBWA members respond to requests -- both big and small -- to provide bottled water to those in need. In Flint, IBWA members immediately stepped forward to reroute trucks and coordinate with local suppliers to provide citizens with safe, clean, bottled water when the public water system was found to be compromised. So far, IBWA members have taken the following actions to help provide the citizens of Flint with safe drinking water:

- Donated over 1.5 million bottles of bottled water.
- Coordinated efforts with emergency relief partners such as Convoy of Hope and the Food Bank of Eastern Michigan.
- Worked with other bottled water retailers and bottlers to ensure approximately 10,000 Flint public school students have access to clean, safe water.

IBWA is the national trade association that represents all segments of the bottled water industry, including spring, mineral, purified, artesian, and sparkling. Founded in 1958, IBWA member companies include water producers, distributors, and suppliers throughout the United States, including several companies conducting business in Michigan. While we represent companies of all sizes, the vast majority of our members are small, locally-owned companies, with 60 percent reporting less than \$2.5 million in annual gross sales, and 90 percent reporting less than \$10 million in annual gross sales. IBWA's mission is to serve the members and the public by championing bottled water as an important choice for healthy hydration, and promoting an environmentally responsible and sustainable industry.

While the conditions associated with the situation in Flint continue to be addressed, please know that the bottled water industry is always ready to help in any way to assist in providing safe, clean, healthy water.

Please contact me should you have any questions or if we can be of any further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Joe Doss".

Joe Doss  
President and CEO





1700 Diagonal Road, Suite 650  
Alexandria, VA 22314  
Ph: 703-683-5213  
Fax 703-683-4074  
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Please contact me should you have any questions or if we can be of any further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Joe Doss".

Joe Doss  
President and CEO

---

**From:** BrownleeJ@michigan.gov  
**Sent:** Thursday, February 18, 2016 1:03 PM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: Flint water problems.  
**Attachments:** IMG\_0001.JPG; ATT00001.htm; IMG\_0009.JPG; ATT00002.htm; ATT66402.eml; ATT00003.htm; ReportViewer.pdf; ATT00004.htm; water testing2-6.pdf; ATT00005.htm

New one from today.

Sent from my iPhone

Begin forwarded message:

From: "Weise, Kevin (MSP)" <WeiseK@michigan.gov>  
To: "Brownlee, Jeff (DTMB)" <BrownleeJ@michigan.gov>  
Subject: FW: FW: Flint water problems.

Another filter idea.

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Baird, Richard (GOV)  
Sent: Tuesday, February 16, 2016 11:02 AM  
To: Weise, Kevin (MSP); Brownlee, Jeff (DTMB)  
Subject: Fwd: FW: Flint water problems.

Sent from my Verizon 4G LTE Droid

----- Forwarded message -----

From: "Scott, Allison (GOV)" <scotta12@michigan.gov>  
Date: Feb 16, 2016 9:46 AM  
Subject: FW: Flint water problems.  
To: "Weise, Kevin (MSP)" <WeiseK@michigan.gov>  
Cc: "Baird, Richard (GOV)" <bairdr@michigan.gov>

For your review

From: Jackie Goforth (US - Assurance) [mailto:jacalyn.s.goforth@pwc.com]  
Sent: Tuesday, February 16, 2016 9:33 AM  
To: Snyder, Rick (GOV) <Rick.Snyder@michigan.gov>  
Cc: Richard L. Baird <rbaird003@hotmail.com>; Scott, Allison (GOV) <scotta12@michigan.gov>

Subject: Fwd: Flint water problems.

Rick,

First, let me say that my thoughts and prayers have been with you and your team. I can't even imagine the heartache you are experiencing over this situation.

You know how friends are, we can't help but try to see what ideas we can come up with to help provide some type of solution. One my High School friends thinks she and her family have one.

It is a Michigan based company that has a water filtration solution. Below is the information he shared with Debbie Stabenow, you may have already seen this, but in case you haven't I thought I would pass it along.

I can't think of a person better suited to lead us all through this situation. Thank you for your balanced and thoughtful leadership.

Kindest Regards,

Jackie

----- Forwarded message -----

From: Marybeth Novitsky <mbmills989@gmail.com<mailto:mbmills989@gmail.com>>

Date: Mon, Feb 15, 2016 at 7:54 PM

Subject: Fwd: Flint water problems.

To: jacalyn.s.goforth@us.pwc.com<mailto:jacalyn.s.goforth@us.pwc.com>,

jacalyn.s.goforth@pwc.com<mailto:jacalyn.s.goforth@pwc.com>

Cc: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Jackie -

Here is the letter that Joe sent to Senator Stabenow. Since then, the Merlin was installed at St Mary's church to supply

water for the homeless, in their shelter. The next Merlin will be installed at St Luke's Women's and Children's Center. Thank you for your efforts.

We appreciate it.

Marybeth

----- Forwarded message -----

From: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>  
Date: Thu, Jan 28, 2016 at 12:45 PM  
Subject: Flint water problems.  
To: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Good Morning Senator.

Please take the time to read this—WE CAN HELP--

This is Joe Novitsky, Architect and inventor of a water purifier that can eliminate or minimize the bottled water eco disaster pending in Flint.

We have been studying the problem, testing the water, and watched you last night on Rachael's show.

YOU DID GREAT! You are the ONLY one that understands the problem right now—even Rachael is not as clear as you on the solution.

Yes, we need filtered water and no one is ever going to dig up the entire City—the pipes will re-coat, and the new supply form Lake Huron will be complete within 18 months and the City system will again be healthy, but what to do until then?

We have a plan.

Of the 100K residents affected we estimate 25,000 households, and 14,000 businesses, based on information taken from the internet.

Each household of 4 needs 5 gallons per day for drinking and cooking.

We can service this need with approximately 300 units, distributed across the City with the HELP OF the COMMUNITY, and that is where you come in. These Places distributing water must be relieved from paying for the water being

distributed. If that can be accomplished, we can solve this 18 month problem for about \$2.5M—FAR LESS than any other proposed effort we have heard about.

We would recommend filtered shower heads, ( about \$50 each), maybe for the clothes washer as well, and one Merlin Eco Solutions unit for about 80-100 homes ( one unit / station per every three blocks), at \$2,000 each, installed by currently unemployed technicians and Vets- that will be paid to do this. We could distribute in 5 gallon camping containers, and each resident would have to lug their daily water no more than a block and a half. It's a pain – but what other REAL choice do we have? The filters they are distributing now are good for 100 gallons, untested, and again an eco-disaster in and of themselves. Our lead filters do not have to be changed for up to 10,000 each and the first primary filter is ceramic and can be cleaned re-used for as many as half a million gallons each!

This same equivalent in bottled water equals 1,250,000 bottles spent PER DAY!! The raw cost, ( \$1/bottle) and associated cost of the current campaign are certainly not sustainable nor acceptable. Have you ever tried to shower with a bottle of water?

Please see the Flint water test results attached. A photo of one that was being installed in a Flint shelter is also attached. The two samples in the other photos are from Michigan Works!, just down the street from your Office, before and after purifying.

Our website is: [www.merlinecosolutions.com](http://www.merlinecosolutions.com)<<http://www.merlinecosolutions.com>>

We are currently working on getting one or two installed at St. Mary's Church currently servicing the bottle distribution, homeless shelter and Michael's Soup Kitchen. This will make an immediate contribution and difference. We did this with funds from GoFundMe site and contributions! (see attached). By the time we get something going with you, you will have their support as we took their water samples yesterday and they are being tested today. Deacon Paul is our contact there. We are currently attempting to help Dr. Mona as well----

FYI—Stanford University Medical Staff, Dr. Weiss, has endorsed this unit and science and Michigan State Chemistry and Biology Labs and Students will be monitoring the units we install to safeguard the residents and process. National Testing Labs have been the Lab we are using to date., (see attached).

I can be reached and will come demonstrate and show off our unit and results whenever you have time – if you are inclined to help us.

Thanks for the time--- and your awareness--- and focus on the solution—

Sincerely,

Joseph S. Novitsky, AIA

Merlin Eco Solutions

O (248) 433-2030

M (586) 995-2170

Joe@JSN-AIA.com<mailto:Joe@JSN-AIA.com>

Skype: JoeN-AIA

---

[<http://static.avast.com/emails/avast-mail-stamp.png>]<<http://www.avast.com/>>

This email has been checked for viruses by Avast antivirus software.  
[www.avast.com](http://www.avast.com)<<http://www.avast.com/>>

----- Forwarded message -----

From: Charles Chervenka <cjchervenka@gmail.com<mailto:cjchervenka@gmail.com>>

To: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Cc:

Date: Tue, 12 Jan 2016 20:36:17 -0500

Subject: Fwd: Lynn posted an update on "Water Purifier for Mission of Hope"

Here's the site for funding. Just click on it.

To get the test data google Merlin Eco Solutions and then click on "test results" at the top of the page.

CJC

----- Forwarded message -----

From: Lynn via GoFundMe <messages@gofundme.com<mailto:messages@gofundme.com>>

Date: Tue, Jan 12, 2016 at 9:56 AM

Subject: Lynn posted an update on "Water Purifier for Mission of Hope"

To: cjchervenka@gmail.com<mailto:cjchervenka@gmail.com>

Hi Charles A new update has been posted to Water Purifier for Mission of Hope Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't nee...

[<https://febc376daf6131a28181-3721cc30b0d63259b2211381d1431a50.ssl.cf1.rackcdn.com/logo-email-v5@2x.png>]

Charles, I posted an update on

Water Purifier for Mission of Hope

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rIdq9TLVuUBwxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ)

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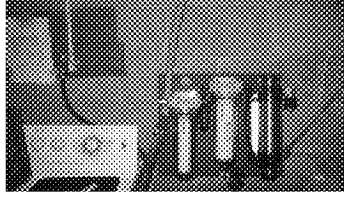
Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't nee...

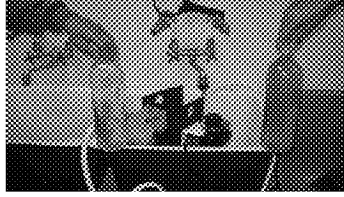
View Campaign

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3lhbaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dcta\\_button%26utm\\_campaign%3Dupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIslmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3lhbaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dcta_button%26utm_campaign%3Dupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIslmNvbTs%3D)>

[[https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293\\_1452465809.8834.png](https://2dbdd5116ffa30a49aa8-c03f075f8191fb4e60e74b907071aee8.ssl.cf1.rackcdn.com/8153293_1452465809.8834.png)][http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3lhbaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIslmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3lhbaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2Njl6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWIslmNvbTs%3D)>







**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166

(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349706****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw, Tap Water**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	1.20*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	34.0	1	1/19/2016 10:30	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	5.000*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	9.100*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	0.850*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	10.00	1	1/19/2016 10:30	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.280*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 10:30	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.018	1	1/19/2016 10:30	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	2.6	1	1/19/2016 10:30	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016

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## ANALYTICAL REPORTS

SAMPLE CODE: 349706

1/22/2016

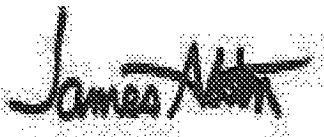
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	15	1	1/19/2016 10:30	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.520	1	1/19/2016 10:30	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**ANALYTICAL REPORTS****SAMPLE CODE: 349707****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw. Filtered through Purifier

**Source City:** Flint

**Source State:** MI

**Date/Time Received:** 1/19/2016 15:00

**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	ND	1	1/19/2016 10:30		1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30		1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	0.002	1	1/19/2016 10:30		1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	2.2	1	1/19/2016 10:30		1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30		1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	ND	1	1/19/2016 10:30		1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	7.10	1	1/19/2016 10:30		1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	1	1/19/2016 10:30		1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.006	1	1/19/2016 10:30		1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	ND	1	1/19/2016 10:30		1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016

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# National Testing Laboratories, Ltd

556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585

## ANALYTICAL REPORTS

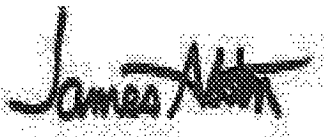
SAMPLE CODE: 349707

1/22/2016

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	32	1	1/19/2016 10:30		1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166

(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349708****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** Flint River Water (Flint River - Downtown)**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	0.12	1	1/19/2016 11:00	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	79.0	1	1/19/2016 11:00	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	0.002	1	1/19/2016 11:00	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	0.280	1	1/19/2016 11:00	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	28.00	1	1/19/2016 11:00	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.032	1	1/19/2016 11:00	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 11:00	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	3.3	1	1/19/2016 11:00	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016

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## ANALYTICAL REPORTS

SAMPLE CODE: 349708

1/22/2016

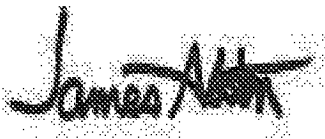
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	34	1	1/19/2016 11:00	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.007	1	1/19/2016 11:00	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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ANALYTICAL REPORTS

SAMPLE CODE: 350014

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #1  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	520*	A6	1	1/27/2016 13:53	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	66*	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350015

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #2 Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	2	A6	1	1/27/2016 13:53	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350016

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: Flint River (Raw) #3  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	390	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

- A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.
- Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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# National Testing Laboratories, Ltd

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## ANALYTICAL REPORTS

SAMPLE CODE: 350017

2/4/2016

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** Flint River (Purified) #4  
**Source City:** Flint  
**Source State:** MI

**Date/Time Received:** 1/28/2016 08:26

**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

### Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

### Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Microbiologicals</b>										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350018

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #5  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26

Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

"ND" This contaminant was not detected at or above our lower reporting limit (LRL)

"NA" Not Analyzed

"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1200*	A6 1	1/27/2016 15:08		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350019  
2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #6 - Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	<1	1	1/27/2016 15:10		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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---

**From:** Microsoft Outlook  
**To:** Arwood, Steve (LARA)  
**Sent:** Tuesday, February 02, 2016 2:35 PM  
**Subject:** Undeliverable: Flint Emergency Purchasing Procedures

Delivery has failed to these recipients or groups:

Arwood, Steve (LARA) (ArwoodS@michigan.gov)

Your message couldn't be delivered to the recipient because you don't have permission to send to it.

Ask the recipient's email admin to add you to the accept list for the recipient.

For more information, see DSN 5.7.129 Errors in Exchange Online and Office 365.

Diagnostic information for administrators:

Generating server: BY1PR09MB0808.namprd09.prod.outlook.com

ArwoodS@michigan.gov

Remote Server returned '550 5.7.129 RESOLVER.RST.RestrictedToRecipientsPermission; not authorized to send to recipient because the sender isn't on the recipient's list of senders to accept mail from'

Original message headers:

Authentication-Results: michigan.gov; dkim=none (message not signed)

header.d=none;michigan.gov; dmarc=none action=none header.from=michigan.gov;

Received: from BY1PR09MB0840.namprd09.prod.outlook.com (10.162.144.139) by  
BY1PR09MB0808.namprd09.prod.outlook.com (10.162.143.26) with Microsoft SMTP  
Server (TLS) id 15.1.396.15; Tue, 2 Feb 2016 19:34:29 +0000

Received: from BY1PR09MB0840.namprd09.prod.outlook.com ([10.162.144.139]) by  
BY1PR09MB0840.namprd09.prod.outlook.com ([10.162.144.139]) with mapi id  
15.01.0396.020; Tue, 2 Feb 2016 19:34:29 +0000

Content-Type: application/ms-tnef; name="winmail.dat"

Content-Transfer-Encoding: binary

From: "Brownlee, Jeff (DTMB)" <BrownleeJ@michigan.gov>

To: "Arbulu, Agustin (MDCR)" <ArbuluA@michigan.gov>, "Arwood, Steve (LARA)"

<ArwoodS@michigan.gov>, "Clover Adams, Jamie (MDARD)"

<CloveradamsJ@michigan.gov>, "Creagh, Keith (DEQ)" <creaghk@michigan.gov>,

"Etue, Kriste (MSP)" <EtueK@michigan.gov>, "Johnson, Ruth (MDOS)"

<JohnsonR43@michigan.gov>, "Khouri, Nick (TREASURY)" <KhouriN@michigan.gov>,

"Lyon, Nick (DHHS)" <LyonN2@michigan.gov>, "Maj. Gen. Gregory Vadnais DMVA"

<gregory.j.vadnais.mil@mail.mil>, "McPharlin, Pat (DIFS)"

<McPharlinP@michigan.gov>, "Moritz, William (DNR)" <MoritzW@michigan.gov>,

"Roberts, John (DTMB)" <RobertsJ9@michigan.gov>, "Schuette, Bill (AG)"

<SchuetteB@michigan.gov>, "Steudle, Kirk (MDOT)" <SteudleK@michigan.gov>,  
"Washington, Heidi E. (MDOC)" <WashingtonM6@michigan.gov>, "Whiston, Brian  
(MDE)" <WhistonB@michigan.gov>, "Winters, Jan (MCSC)"  
<WintersJ@michigan.gov>, "Zimmer, Mike (LARA)" <zimmerm@michigan.gov>,  
"Allan, Jon (DEQ)" <AllanJ@michigan.gov>, "Barnes, Jeff (DMVA)"  
<barnesj7@michigan.gov>, "Bowen, Scott (MSL)" <bowens1@michigan.gov>,  
"Brader, Valerie (LARA)" <braderv@michigan.gov>, "Comai, Stephanie (TIA)"  
<ComaiS1@michigan.gov>, "Deloney, Andrew (LARA)" <DeloneyA@michigan.gov>,  
"Elsenheimer, Kevin (MSHDA)" <ElsenheimerK@michigan.gov>, "Goei, Bing (LARA)"  
<GoeiB@michigan.gov>, "Hawks, Orlene (DTMB)" <HawksO@michigan.gov>, "Kalm,  
Rick (MGCB)" <KalmR@michigan.gov>, "Ringler, Doug (OAG)"  
<dringler@audgen.michigan.gov>, "Waalkes, Marie (DTMB)"  
<WaalkesM1@michigan.gov>

Subject: Flint Emergency Purchasing Procedures

Thread-Topic: Flint Emergency Purchasing Procedures

Thread-Index: AdFd74EaDcXomO98QIWA+mq5WR93Tg==

Date: Tue, 2 Feb 2016 19:34:29 +0000

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---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 02, 2016 2:34 PM  
**To:** Arbulu, Agustin (MDCR);Arwood, Steve (LARA);Clover Adams, Jamie (MDARD);Creagh, Keith (DEQ);Etue, Kriste (MSP);Johnson, Ruth (MDOS);Khoury, Nick (TREASURY);Lyon, Nick (DHHS);Maj. Gen. Gregory Vадnais DMVA;McPharlin, Pat (DIFS);Moritz, William (DNR);Roberts, John (DTMB);Schuette, Bill (AG);Steudle, Kirk (MDOT);Washington, Heidi E. (MDOC);Whiston, Brian (MDE);Winters, Jan (MCSC);Zimmer, Mike (LARA);Allan, Jon (DEQ);Barnes, Jeff (DMVA);Bowen, Scott (MSL);Brader, Valerie (LARA);Comai, Stephanie (TIA);Deloney, Andrew (LARA);Elsenheimer, Kevin (MSHDA);Goei, Bing (LARA);Hawks, Orlene (DTMB);Kalm, Rick (MGCB);Ringler, Doug (OAG);Waalkes, Marie (DTMB)  
**Subject:** Flint Emergency Purchasing Procedures  
**Attachments:** Flint Emergency Purchasing Procedures.pdf

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee  
Ofc: 517-284-7003  
Cell: 517-930-3472



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

DAVID B. BEHEN  
DIRECTOR

February 2, 2016

**TO:** State of Michigan Procurement Leadership  
**FROM:** DTMB Procurement  
**SUBJECT:** Genesee County Water Emergency Response - Purchasing Guidance

Thank you to all who are working to support the State of Michigan's Genesee County, City of Flint water emergency response.

Given the complexity and variety of the needs of this emergency effort, the purchasing support required is complex as well. Purchasing protocols have some differences under this declared state of emergency, and meticulous tracking of expenditures is imperative.

The Michigan State Police (MSP) is the lead agency overseeing the situation and managing the State Emergency Operations Center (SEOC). Flint related purchases must first be routed through the appropriate SEOC contact (see attached for an agency roster) to include the SEOC State Director. This is required for all Flint- related purchases without exception. The SEOC financial team is responsible for tracking all expenditures in connection with the emergency efforts.

***Each agency is responsible for its own purchasing transactions. This includes p-card transactions and purchase orders, the tracking of all such transactions, and reporting of those transactions to the appropriate SEOC representative. Failure to properly inform the SEOC financial team of any transaction may result in a forfeiture of any potential reimbursement anticipated by the agency.***

Agency purchasing managers are responsible to supply their agency's SEOC representative with a 24/7 phone number for agency purchasing staff support and request that the SEOC representative involves them in every purchase. (Note: SEOC hours are 8 am to 8 pm, seven days a week at this time.)

***Emergency Purchasing Procedure:***

Public Act 431 of 1984 provides an exception to competitive bidding during a state of emergency. However, responsible purchasing procedures are still the expectation for all procurement professionals (agency purchasing staff).

In addition to the notification and reporting expectations set forth above, transactions should be conducted and/or overseen by procurement professionals, with rare exception, in accordance with the following:

- Each agency makes their own determination when an emergency purchase order is required, and is then responsible for the supporting documentation
- Utilize existing State contracts where possible. Contact DTMB Procurement for help negotiating bulk rates or expedited shipments if needed, and for any concerns related to availability of funds on a contract

- Obtain three quotes whenever reasonably practicable
- Post bids online to the extent practicable
- Please escalate any questions to DTMB Procurement before executing a buy
- DTMB Procurement will assist any agency upon request to address supply chain issues (e.g. working with a national supplier to ensure a high volume supply of water filters are available)
- DTMB-Financial Services is not responsible for issuing emergency purchase orders on behalf of agencies with the exception of information technology related goods and services
- Maintain documentation supporting all transactions. Establish internal protocols to support this such as a single spreadsheet to track agency-wide transactions. Report your agency's expenses to the SEOC Finance team via your SEOC representative.

Questions, concerns, or comments should be directed to:

Primary Contact:

Rebecca Cook, Commodities Division Director

[Cookr6@michigan.gov](mailto:Cookr6@michigan.gov)



Secondary Contact:

Jeff Brownlee, Chief Procurement Officer

[brownleej@michigan.gov](mailto:brownleej@michigan.gov)



Sincerely,

Jeff Brownlee

Chief Procurement Officer

State of Michigan

---

**Subject:** Flint - Purchasing Roles  
**Location:** CH-1N-Glenn Allen, Constitution Hall, Procurement Office  
**Start:** Tue 2/9/2016 4:30 PM  
**End:** Tue 2/9/2016 5:00 PM  
**Recurrence:** (none)  
**Meeting Status:** Accepted  
**Organizer:** Cook, Rebecca (DTMB)  
**Required Attendees:** Brownlee, Jeff (DTMB); Christensen, Chris (DTMB); Spaniolo, Natalie (DTMB); Knapp, Kathy (DTMB)  
**Optional Attendees:** Fortino, Diane (DTMB)



Flint Emergency  
Purchasing Pro...

#### AGENDA

Recent guidelines memo from CPO

Discuss how this memo may supersede the current SEOC protocol (where all purchases go through one person). Current protocols did not contemplate such a broad emergency of long duration

Discuss agency purchasing roles and responsibilities to support SEOC members

Discuss how funding source may play a role in which purchasing staff assist

Discuss who determines whether a purchase is an emergency

Jeff, Chris and Natalie

Jeff asked that I set up a meeting to discuss purchasing roles to support OIP/SEOC for Flint response. If this is not a convenient time, please let Diane or Kathy know, and they can assist in us scheduling at a more convenient time.

Chris – I see your calendar is blocked off. We can pick a meeting location close to where you'll be if that would be helpful.

Please contact me if you have questions.

Thank you.

Rebecca



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

DAVID B. BEHEN  
DIRECTOR

February 2, 2016

**TO:** State of Michigan Procurement Leadership  
**FROM:** DTMB Procurement  
**SUBJECT:** Genesee County Water Emergency Response - Purchasing Guidance

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Questions, concerns, or comments should be directed to:

Primary Contact:

Rebecca Cook, Commodities Division Director

[Cookr6@michigan.gov](mailto:Cookr6@michigan.gov)

[REDACTED]

Secondary Contact:

Jeff Brownlee, Chief Procurement Officer

[brownleei@michigan.gov](mailto:brownleei@michigan.gov)

[REDACTED]

Sincerely,

Jeff Brownlee

Chief Procurement Officer

State of Michigan

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, September 30, 2015 5:07 PM  
**To:** Sanches, Christine (DHS)  
**Cc:** Maynard, Sharon (DTMB); Cook, Rebecca (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DCH); Kangas, Susan (DHS); Smith, Terri (DHS)  
**Subject:** Re: URGENT REQUEST - - WATER FILTERS

Let's work together on this. Who are potential suppliers? Sharon, do we have existing suppliers/contracts?

Sent from my iPhone

On Sep 30, 2015, at 4:57 PM, Sanches, Christine (DHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Jeff,

DHHS has an emergent need to procure up to 25,000 water filters to provide to DHHS clients who are currently using the city of Flint water system. I intend on sending a purchase request through iTRAC, but wanted to know how quickly your office could procure them. Director Lyon is meeting with Governor Snyder tomorrow to discuss the topic. If you could give me an idea of how many you could procure and how soon, that would be great. If the two DHHS offices in Flint could obtain an initial shipment in the next day or two, that information can be shared with the Director and the Governor's Office.

Attached is the Public Health Advisory that was issued. Page 2 indicates the specs for the filters.

Please Advise as to how quickly these filters could be procured and in what timeframe.

State data confirms higher blood-lead levels in Flint kids

Detroit Free Press – September 27, 2015, By Kristi Tanner and Nancy Kaffer

<http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/state-data-flint-lead/72820798/>

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Snyder must act on Flint lead crisis

Detroit Free Press – September 27, 2015, By Nancy Kaffer

<http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/shortfalls-em-law-writ-large-flint-water-crisis/72811990/>

Thanks,

Chris

Christine H. Sanches

Director, Office of Contracts & Purchasing

Michigan Department of Health & Human Services

Suite 1201

235 S. Grand Ave.

Lansing, MI 48933

[sanchesc@michigan.gov](mailto:sanchesc@michigan.gov)

517-335-1161 desk



517-614-9948 cell

<image002.jpg>

CONFIDENTIALITY NOTICE:

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<Flint Water Filter - Public Advisory.pdf>

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, October 01, 2015 10:26 AM  
**To:** Sanches, Christine (DHHS)  
**Cc:** Fortino, Diane (DTMB); Maynard, Sharon (DTMB); Stephen, Kimberly (DHHS); Hanley, Farah (DHHS); Scott, Teri (DHHS); Cook, Rebecca (DTMB)  
**Subject:** Re: URGENT REQUEST - - WATER FILTERS

All, I'm traveling--taxis, airports, security checks. Can't really get on the phone for a while. I'm hoping with all the experience this team has that Chris, Rebecca, and Sharon can find a solution. If there is a direct question for me, please send and I will respond as soon as I can.

Jeff

Sent from my iPhone

On Oct 1, 2015, at 9:01 AM, Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Jeff,

Are you available for a 15 minute phone call sometime this a.m. preferably 9:30

Let us know.

Chris

---

**From:** Hanley, Farah (DHHS)  
**Sent:** Wednesday, September 30, 2015 7:09 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** RE: URGENT REQUEST - - WATER FILTERS

Thanks for all your help Rebecca. We are scheduling a conference call first thing tomorrow morning to figure out the best path forward and get some answers to questions. We can plan to have further conversations after that.

Farah

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, September 30, 2015 6:54 PM  
**To:** Hanley, Farah (DHHS); Brownlee, Jeff (DTMB); Sanches, Christine (DHHS)  
**Cc:** Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DHHS); Kangas, Susan

(DHHS); Smith, Terri (DHHS); Rigg, Steve (DTMB)  
**Subject:** RE: URGENT REQUEST - - WATER FILTERS

Farah

I've only identified two current State contracts that may have water filters. Meijer is not a current contract holder; although it's possible to approach them, depending on the path forward. Will it help if I try to explain three possible sourcing methods?

- Work with one or two current contract holders. By using current contracts, we don't need to seek additional quotes. (Grainger and Home Depot have been identified, contacted, and will provide updates tomorrow morning.)
- If current contract holders cannot provide in the time window, seek exemption from online bidding, obtain three quotes with price and lead time, and order from one or multiple sources.
- If the above two options are not viable, DHHS can issue an emergency purchase (EP) order. By using an EP, DHHS can order filters as soon as suppliers are identified, without seeking multiple quotes. Terri can clarify DHHS' process for EPs.

I'll continue researching with our two contract vendors. If it becomes apparent tomorrow morning that neither can supply these, then we'll start cold calling alternate suppliers to get three quotes and obtain an exemption from online bidding.

Does DHHS have an estimated timeframe tomorrow morning when we'll receive responses to the questions below?

Please feel free to give me a call on my cell anytime as we work through this.

Rebecca Cook  
517-930-4015

---

**From:** Hanley, Farah (DCH)  
**Sent:** Wednesday, September 30, 2015 6:33 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DCH) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** RE: URGENT REQUEST - - WATER FILTERS

Thanks Rebecca. Are there other contracts we could use? Meijer is Michigan based. Can we check with them? If I'm violating some procurement policy then just stop me now...

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, September 30, 2015 6:30 PM  
**To:** Brownlee, Jeff (DTMB); Sanches, Christine (DHS)  
**Cc:** Maynard, Sharon (DTMB); Fortino, Diane (DTMB); Stephen, Kimberly (DCH); Kangas, Susan (DHS); Smith, Terri (DHHS); Rigg, Steve (DTMB); Hanley, Farah (DCH)  
**Subject:** RE: URGENT REQUEST - - WATER FILTERS

As a Plan B, I just spoke with the Home Depot rep, and he will begin working on this tomorrow as well. Home Depot would like confirmation of the same questions, below.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, September 30, 2015 6:21 PM

**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Sanches, Christine (DHS)

<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Fortino, Diane (DTMB)

<[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DCH) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHS)

<[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHS) <[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>; Rigg, Steve (DTMB)

<[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Hanley, Farah (DCH) <[hanleyf@michigan.gov](mailto:hanleyf@michigan.gov)>

**Subject:** RE: URGENT REQUEST - - WATER FILTERS

All

I just spoke with our rep for the Grainger contract. We reviewed the specs, quantity and timeframe. He is activating his executive leadership now, and they will be working with vendors tomorrow morning to determine whether Grainger can fulfill this. I will receive a status update call by 10 am.

I may be receiving emails tonight and tomorrow morning with vendor questions. Who in DCH should be my lead contact to seek answers, or do you prefer I email them to the group?

A couple of questions now:

- Just to clarify, DHHS seeks a filter that fits on a residential kitchen faucet, and meets the specs in the attachment?
- How many filters are needed in an initial shipment?
- If Grainger can supply these, they may have to pull from various manufacturers that meet the specifications listed. Please confirm it is acceptable that DHHS may not receive 25,000 of precisely the same item.

Please contact me and buyer Steve Rigg with any questions.

Thank you.

Rebecca Cook

Cell 517-930-4015

517-284-7008

---

**From:** Brownlee, Jeff (DTMB)

**Sent:** Wednesday, September 30, 2015 5:07 PM

**To:** Sanches, Christine (DHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>

**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Cook, Rebecca (DTMB)

<[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Stephen, Kimberly (DCH)

<[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>; Kangas, Susan (DHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>; Smith, Terri (DHS)

<[SmithT42@michigan.gov](mailto:SmithT42@michigan.gov)>

**Subject:** Re: URGENT REQUEST - - WATER FILTERS

Let's work together on this. Who are potential suppliers? Sharon, do we have existing suppliers/contracts?

Sent from my iPhone

On Sep 30, 2015, at 4:57 PM, Sanches, Christine (DHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)> wrote:

Jeff,

DHHS has an emergent need to procure up to 25,000 water filters to provide to DHHS clients who are currently using the city of flint water system. I intend on sending a purchase request through iTRAC, but wanted to know how quickly your office could procure them. Director Lyon is meeting with Governor Snyder tomorrow to discuss the

topic. If you could give me an idea of how many you could procure and how soon, that would be great. If the two DHHS offices in Flint could obtain an initial shipment in the next day or two, that information can be shared with the Director and the Governor's Office .

Attached is the Public Health Advisory that was issued. Page 2 indicates the specs for the filters.

Please Advise as to how quickly these filters could be procured and in what timeframe.

State data confirms higher blood-lead levels in Flint kids

Detroit Free Press – September 27, 2015, By Kristi Tanner and Nancy Kaffer

<http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/state-data-flint-lead/72820798/>

---

Snyder must act on Flint lead crisis

Detroit Free Press – September 27, 2015, By Nancy Kaffer

<http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/shortfalls-em-law-writ-large-flint-water-crisis/72811990/>

Thanks,

Chris

Christine H. Sanches

Director, Office of Contracts & Purchasing

Michigan Department of Health & Human Services

Suite 1201

235 S. Grand Ave.

Lansing, MI 48933

[sanchesc@michigan.gov](mailto:sanchesc@michigan.gov)

517-335-1161 desk

517-614-9948 cell

<image002.jpg>

**CONFIDENTIALITY NOTICE:**

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<Flint Water Filter - Public Advisory.pdf>

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, October 05, 2015 12:39 PM  
**To:** Maynard, Sharon (DTMB)  
**Subject:** RE: Staff Recognition

Rebecca and Rigg for their extraordinary work with water filters for DHHS/Flint!

---

**From:** Maynard, Sharon (DTMB)  
**Sent:** Monday, October 5, 2015 9:13 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Pemble, William (DTMB) <[PembleW@michigan.gov](mailto:PembleW@michigan.gov)>; Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Hayes, Genevieve (DTMB) <[HayesG2@michigan.gov](mailto:HayesG2@michigan.gov)>; Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>  
**Subject:** Staff Recognition

All staff meeting scheduled for Wednesday 1-3.

Can you please provide staff name(s) and justification, limit 2 per manager, by close of business tomorrow. thx!

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, January 06, 2016 7:10 AM  
**To:** Cook, Rebecca (DTMB)  
**Subject:** Re: Declared Emergency for City of Flint - Procurement Lead Designated

Thanks, Rebecca.

Sent from my iPhone

On Jan 5, 2016, at 6:24 PM, Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)> wrote:

FYI – No action needed.

The State's Emergency Operations Center has been activated due to the Governor's declared state emergency regarding Flint's water. Procurement's assistance is required, and we are actively pulling together the sourcing information required.

Steve Rigg did a great job in the first round of expedited sourcing of water filters for DHHS, and will be the lead working with SEOC. I'll back him up for questions/support. Steve has already been contacted at home for any additional feedback for the 9 am conference call.

Please let me know if you have any questions.

Thank you.

Rebecca

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Tuesday, January 5, 2016 6:00 PM  
**To:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>  
**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** Declared Emergency for City of Flint

Jeannette

Sorry for the delayed reply! I'm in meetings a lot of the day, so you are always welcome to use my cell 517-930-4015, or directly contact the buyer.

For your 9 am call, please share that Procurement is actively compiling information, *and has a few questions in italics.*

*Will the State be seeking FEMA reimbursement for any of these purchases? If so, is there one person that can work with Steve to ensure that our sourcing process complies with FEMA Guidelines for reimbursement?*

**WATER FILTERS AND REPLACEMENT CARTRIDGES**

- Wednesday morning Steve will contact Home Depot to get price/availability/lead time for current inventory
- *Who will develop usage estimates and share them with us? Last time Home Depot's executive leadership contacted the manufacturer on our behalf to route limited stock to Michigan to fill*

*our purchase order. Stocks were limited due to flood conditions in other states -- and currently there may be similar or worse national flood conditions.*

#### WATER PITCHER FILTRATION AND REPLACEMENT CARTRIDGES

- In the previous distribution, Home Depot sourced water pitcher filters and replacement cartridges in limited applications where the faucet filter was not feasible. Steve will pull price/availability/lead time for current inventory
- *Who will develop usage estimates and share them with us?*

#### BOTTLED WATER

- There may be more contracts to pull from than we first thought. Wednesday morning Steve and I will make a list of contracts that may be able to source bottled water, including sizes -- and then Steve will work with the vendors to assess price/availability/lead time.
- *Are they looking for cases of individual servings of bottled water, or larger commercial size bottles?*
- *Any feedback on the applications, number of ship to's, and usage estimates?*

Steve will expedite updates to you as information becomes available.

Comments / concerns on the above?

Please let us know how else we may be of help.

Rebecca

---

**From:** Doll, Jeanette (DTMB)

**Sent:** Tuesday, January 5, 2016 5:11 PM

**To:** Cook, Rebecca (DTMB) <[CookR5@michigan.gov](mailto:CookR5@michigan.gov)>

**Subject:** RE: Possible declared emergency for City of Flint

Hi Rebecca --

I left a voicemail message for you earlier in regards to contracts (thought we would have a couple days), but I just received notification tonight that the SEOC will be activated tomorrow morning at 8 AM with a briefing to be conducted at 9 AM. I will put together a list of water contracts currently in place and may need to contact you for potential items we may need to procure. Not sure at this time what may be requested.

You mentioned that your group was involved in obtaining water filters. We may be needed to acquire replacement filters and I was wondering how soon / where we could get these delivered? Would the vendor ship them to wherever we requested i.e. multiple addresses or would one site be best?

Thanks for your help!

Jeanette

---

**Tue 1/5/2016 7:08 AM**

Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>

**RE: Possible declared emergency for City of Flint**

Thanks Rebecca! I've reached out to the director of MSP's Emergency Management Division and let him know that we are here to assist. The DHHS and MSP have been participating in conference calls with the city and providing updates to the emergency managers.

I've already shared with MSP what a great team we have in procurement! Hopefully, we'll hear more in the next week or so to better prepare us for response. Once I have additional information, I will share it with you.



---

Jeanette

**From:** Cook, Rebecca (DTMB)  
**Sent:** Monday, January 4, 2016 7:42 PM  
**To:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>  
**Cc:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** Possible declared emergency for City of Flint

Jeannette

Are you in the loop on this yet? Anything you need from us?

FYI, my team worked with DHHS to source all of the water filters and replacement cartridges the State distributed in Flint. We also obtained some donations of bottled water and could assess what contracts may be available for purchases of bottled water. Please let us know if you would like us to have that prepped for you, or what else you might need. The buyer is copied in case you need something asap and I'm in a meeting.

### **Snyder Gathering Info On Declaring Emergency In Flint**

Gov. Rick SNYDER's administration is gathering the "information about the resources needed" to declare a state of emergency in Flint from the lead-in-the-water crisis.

The Governor's office confirmed this after the Genesee County Board of Commissioners voted to declare a state of emergency in Flint today.

Snyder spokesperson Dave **MURRAY** said after the vote today, the Michigan State Police's Emergency Management and Homeland Security Division is working with Genesee County on the next steps.

"But prior to a formal declaration, we are recognizing this as an emergency and are working with city and county leaders to coordinate efforts, streamline communication and tap all available resources at the state's control," Murray said.

Senate Minority Leader Jim ANANICH (D-Flint) issued a statement today, saying, "This is an important step in the process and the Governor should make a swift decision. I'll continue pushing hard to make sure we receive additional resources that address immediate and long-term needs, and that they are used efficiently and effectively."

A Governor's declaration of emergency would trigger more state resources and assistance with the crisis, and locals can request this if the recovery efforts are beyond the ability of the local government.

Rebecca Cook  
DTMB Procurement

Commodities Division Director  
517-284-7008

<image001.gif>

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, January 19, 2016 1:22 PM  
**To:** Graham, Kimberly (DMVA); Calahan, Heather (DTMB)  
**Cc:** Maynard, Sharon (DTMB)  
**Subject:** RE: PLT Agenda

Thanks, Kim. Understood.

---

**From:** Graham, Kimberly (DMVA)  
**Sent:** Tuesday, January 19, 2016 1:14 PM  
**To:** Calahan, Heather (DTMB) <[CALAHANH@michigan.gov](mailto:CALAHANH@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: PLT Agenda

Hi Heather:

With DMVA deploying troops for the Flint Water Crisis, I wanted to let you know that I will likely not be at the leadership meeting on Wednesday or the meeting on Friday. Right now we have a wave of soldiers going today and tomorrow. I've been working in our Joint Operations Center since Sunday. I wanted to notify DTMB, Procurement so that you're aware as to why I won't be in attendance :o)

**Thank You,**  
**Kimberly Graham, Buyer Manager**  
**DMVA, State Operations - Purchasing & Contracts**  
**Reserve Forces Support Center**  
**3423 N. Martin Luther King Jr. Blvd, Suite 320F**  
**Lansing, MI 48906**  
**(517) 481-7643 – Office**  
**(517) 481-7644 - Fax**

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**Go to [www.buy4michigan.com](http://www.buy4michigan.com)**

---

**From:** Calahan, Heather (DTMB)  
**Sent:** Tuesday, January 19, 2016 9:19 AM  
**To:** Brownlee, Jeff (DTMB); Vargovich, Carol (MCSC); Epkey, Amy (DEQ); Sanches, Christine (DHHS); Wright, Penny (DIFS); Graham, Kimberly (DMVA); Gyorkos, Laura (DNR); Hamp, Julie M. (MDOC); Paradine, Cindy (MDOS); Frierson, Myron (MDOT); Spaniolo, Natalie (DTMB); Mullen, Patrick (DTMB); Maynard, Sharon (DTMB); Simon, Robert (MGCB); Droste, LeAnn (LARA); Robinson, Steve (LARA); Kish, Lucy (MSL); Bruce, David M. (MDARD); Shackelford, Levita (MDCR); Morse, Peter (MEDC); Grammer, Scott (MSHDA); Olivarez, Victoria (MSP); Smith, Gerri (DTMB); Moody, Michael (DTMB); Hanes, Bruce (TREASURY); Gyorkos, Laura (DNR); Quigley, David (DTMB); Stephen, Kimberly (DHHS); Zuker, Whitnie (DTMB); McDonald, Paul (DEQ); Edgett, Chelsea (MEDC)  
**Cc:** Maher, Sharon (DEQ); Schmitt, Jane (MDE); Bassett, Chad (MDE)  
**Subject:** PLT Agenda

Good morning,

Attached is a copy of agenda and attachments for the PLT meeting scheduled for January 20, 2015.

Please let me know if you have any questions.

Heather  
517-284-7006

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, January 19, 2016 1:40 PM  
**To:** Calahan, Heather (DTMB)  
**Subject:** FW: Flint Water filters  
**Attachments:** image001.gif

Will you please take this one?

---

**From:** Sweeney, Matthew (DTMB)  
**Sent:** Tuesday, January 19, 2016 1:26 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Cc:** Calahan, Heather (DTMB) <[CALAHANH@michigan.gov](mailto:CALAHANH@michigan.gov)>  
**Subject:** FW: Flint Water filters

Do you know if we're buying the filters all from one source?

---

**From:** Lange, Michelle (GOV) [<mailto:LangeM3@michigan.gov>]  
**Sent:** Tuesday, January 19, 2016 11:43 AM  
**To:** Sweeney, Matthew (DTMB); Starr, Scott (DTMB)  
**Subject:** Fwd: Flint Water filters

Do you guys have info on this?

Begin forwarded message:

**From:** "Keilen, Alison (GOV)" <[keilena2@michigan.gov](mailto:keilena2@michigan.gov)>  
**Date:** January 19, 2016 at 11:29:11 AM EST  
**To:** "Lange, Michelle (GOV)" <[LangeM3@michigan.gov](mailto:LangeM3@michigan.gov)>  
**Subject:** FW: Flint Water filters

Where to direct them?

---

**From:** Rep. Larry Inman (District 104) [<mailto:LarryInman@house.mi.gov>]  
**Sent:** Tuesday, January 19, 2016 10:50 AM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>; Keilen, Alison (GOV) <[keilena2@michigan.gov](mailto:keilena2@michigan.gov)>; Sweeney, Matthew (DTMB) <[SweeneyM1@michigan.gov](mailto:SweeneyM1@michigan.gov)>; Dehner, Amy (MSP) <[DehnerA@michigan.gov](mailto:DehnerA@michigan.gov)>; Fitzgerald, Timothy (MSP) <[fitzgeraldt@michigan.gov](mailto:fitzgeraldt@michigan.gov)>  
**Subject:** FW: Flint Water filters

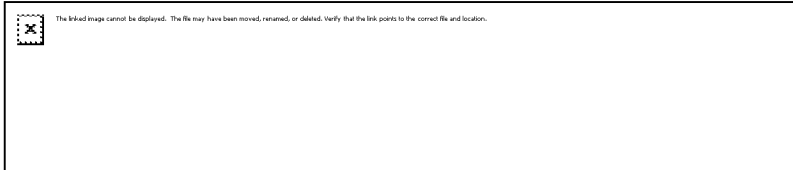
Good Morning,

Representative Inman received the following email from one of his constituents. If someone could help me to obtain this information I would be very grateful.

Thank you,

**Danielle Bruci**  
Legislative Assistant  
Office of State Representative Larry Inman

**Anderson House Office Building, S1388**  
124 North Capitol Avenue  
P.O. Box 30014  
Lansing, MI 48909-7514  
[DBruci@house.mi.gov](mailto:DBruci@house.mi.gov)  
Office: (517) 373-1766



---

**From:** Andy Marek [<mailto:diditforlove@yahoo.com>]  
**Sent:** Monday, January 18, 2016 10:32 PM  
**To:** Rep. Larry Inman (District 104) <[LarryInman@house.mi.gov](mailto:LarryInman@house.mi.gov)>  
**Subject:** Flint Water filters

Dear Representative Inman,

It has been brought to my attention that Michigan has been buying water filters for the City of Flint. I am interested in finding out what brand, model, and types of filters were purchased for Flint.

Thank you for your assistance retrieving this information,

Andy Marek  
2875 East Railroad Ave  
Interlochen, Mi 49643

(231)218-9175

[diditforlove@yahoo.com](mailto:diditforlove@yahoo.com)

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, January 19, 2016 3:48 PM  
**To:** Calahan, Heather (DTMB); Sweeney, Matthew (DTMB)  
**Subject:** RE: Flint Water filters

Matt,

I believe we have one source of these right now—a very big player that has been coordinating supply for us from around the country and even internationally.

Jeff

---

**From:** Calahan, Heather (DTMB)  
**Sent:** Tuesday, January 19, 2016 3:30 PM  
**To:** Sweeney, Matthew (DTMB) <[SweeneyM1@michigan.gov](mailto:SweeneyM1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Flint Water filters

Matt,

Here are the water filters brand, model and type that have been purchased for Flint. Please let me know if you need more information.

Brand	Model	Type
Brita	6025835214	on-tap faucet filtration system
Brita	1001696030	on-tap FF-100 faucet filter system in white
Brita		replacement filter (1-pack)
Brita	6025842402	faucet-mount replacement water filters (2-pack)
Brita	6025842618	on tap replacement filters in chrome
PUR	FM3700BV1	Mineral clear advanced vertical faucet mount water filtration system
PUR	FM9400BV1	Mineral clear advanced plus horizontal faucet mount
PUR	RF99991V1	replacement filter (1-pack)
PUR	RF99992V1	replacement filter (2-pack)
PUR	RF99993V1	replacement filter (3-pack)
PUR	RF33751V1	classic clear faucet mount replacement filter
ZERO Water	ZD-013D	8-cup pitcher

---

**From:** Sweeney, Matthew (DTMB)  
**Sent:** Tuesday, January 19, 2016 1:26 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>

**Cc:** Calahan, Heather (DTMB) <CALAHANH@michigan.gov>

**Subject:** FW: Flint Water filters

Do you know if we're buying the filters all from one source?

---

**From:** Lange, Michelle (GOV) [mailto:LangeM3@michigan.gov]

**Sent:** Tuesday, January 19, 2016 11:43 AM

**To:** Sweeney, Matthew (DTMB); Starr, Scott (DTMB)

**Subject:** Fwd: Flint Water filters

Do you guys have info on this?

Begin forwarded message:

**From:** "Keilen, Alison (GOV)" <keilena2@michigan.gov>

**Date:** January 19, 2016 at 11:29:11 AM EST

**To:** "Lange, Michelle (GOV)" <LangeM3@michigan.gov>

**Subject:** FW: Flint Water filters

Where to direct them?

---

**From:** Rep. Larry Inman (District 104) [mailto:LarryInman@house.mi.gov]

**Sent:** Tuesday, January 19, 2016 10:50 AM

**To:** Snyder, Rick (GOV) <Rick.Snyder@michigan.gov>; Keilen, Alison (GOV) <keilena2@michigan.gov>; Sweeney, Matthew (DTMB) <SweeneyM1@michigan.gov>; Dehner, Amy (MSP) <DehnerA@michigan.gov>; Fitzgerald, Timothy (MSP) <fitzgeraldt@michigan.gov>

**Subject:** FW: Flint Water filters

Good Morning,

Representative Inman received the following email from one of his constituents. If someone could help me to obtain this information I would be very grateful.

Thank you,

**Danielle Bruci**

Legislative Assistant

Office of State Representative Larry Inman

**Anderson House Office Building, S1388**

124 North Capitol Avenue

P.O. Box 30014

Lansing, MI 48909-7514

[DBruci@house.mi.gov](mailto:DBruci@house.mi.gov)

Office: (517) 373-1766





The linked image cannot be displayed. The file may have been moved, renamed, or deleted. Verify that the link points to the correct file and location.

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**From:** Andy Marek [<mailto:diditforlove@yahoo.com>]  
**Sent:** Monday, January 18, 2016 10:32 PM  
**To:** Rep. Larry Inman (District 104) <[Larryinman@house.mi.gov](mailto:Larryinman@house.mi.gov)>  
**Subject:** Flint Water filters

Dear Representative Inman,

It has been brought to my attention that Michigan has been buying water filters for the City of Flint. I am interested in finding out what brand, model, and types of filters were purchased for Flint.

Thank you for your assistance retrieving this information,

Andy Marek  
2875 East Railroad Ave  
Interlochen, Mi 49643

(231)218-9175

[diditforlove@yahoo.com](mailto:diditforlove@yahoo.com)

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 11:37 AM  
**To:** Minix, Connie (DTMB)  
**Subject:** Accepted: 3:35 Conf Call re: Flint/Emergency Purchasing

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 12:02 PM  
**To:** Cook, Rebecca (DTMB)  
**Cc:** Hamilton, Kelly (DTMB); Davis, Stephen (DTMB); Maynard, Sharon (DTMB)  
**Subject:** RE: New Cell phone request - related to State emergency

Obviously, we'll take the .99 option

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 11:59 AM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Cc:** Hamilton, Kelly (DTMB) <HamiltonK9@michigan.gov>; Davis, Stephen (DTMB) <daviss1@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Subject:** RE: New Cell phone request - related to State emergency

Attached is the form that will need to be completed for both users. The devices available are:

iPhone 5S - \$0.99  
iPhone 6 - \$99.99  
Samsung Galaxy S5 - \$99.99

Once it has signed approval, please e-mail the form to me and I'll get them ordered.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax



**HELP. CONNECT. SOLVE.**

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 11:21 AM  
**To:** Hummel, Mindy (DTMB) <HummelM@michigan.gov>  
**Cc:** Hamilton, Kelly (DTMB) <HamiltonK9@michigan.gov>; Davis, Stephen (DTMB) <daviss1@michigan.gov>; Maynard, Sharon (DTMB) <maynards1@michigan.gov>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Subject:** Re: New Cell phone request - related to State emergency

Steve Rigg and Melissa Sambiagio

I'm in meetings and Melissa will work with you to get any forms filled out, coordinate our sign offs etc.

Thanks for checking on that

On Jan 21, 2016, at 11:17 AM, Hummel, Mindy (DTMB) <HummelM@michigan.gov> wrote:

Hi Rebecca:  
Yes, I'd be happy to help.

Who are they for? I'll need to check to make sure this isn't something that should be processed through Infrastructure Security as they have already purchased devices for this project.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image003.png>

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**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>; Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>  
**Cc:** Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** New Cell phone request - related to State emergency

Mindy

Our cell phone coordinator Kelly is out sick today. Jeff Wellman asked me to check into getting two of our buyers State phones while they are involved in supporting the Emergency Ops Center/Flint.

Can you help me through basics to get rough numbers? Appreciate any assistance you can provide.

Rebecca Cook  
State of Michigan  
DTMB Procurement  
Commodities Division Director  
517-284-7008



HELP. CONNECT. SOLVE.

---

**From:** Wellman, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 10:41 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Melissa, thank you very much for volunteering – it is greatly appreciated.

Rebecca - can we get Melissa a state phone?

Jeff W.

---

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**Cc:** Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>  
**Subject:** FW: Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

FYI -- no action needed.

Just wanted to share we have a second staffer stepping up and delivering great customer service related to Flint. Melissa has volunteered to take phone questions related to water sampling bottles during the SEOC hours of 8 am to 8 pm. Or whenever the phone rings.

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Thursday, January 21, 2016 10:22 AM  
**To:** Wolf, Jennifer (DNR) <[WOLFJ1@michigan.gov](mailto:WOLFJ1@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Campbell, Mary Jo (DEQ) <[CAMPBELLM3@michigan.gov](mailto:CAMPBELLM3@michigan.gov)>; Austin, Dawn (DEQ) <[AUSTIND3@michigan.gov](mailto:AUSTIND3@michigan.gov)>; Smith, Carol (DEQ) <[SMITHC@michigan.gov](mailto:SMITHC@michigan.gov)>; Pieper, Julia (DEQ) <[PIEPERJ2@michigan.gov](mailto:PIEPERJ2@michigan.gov)>; Christensen, Christen (DEQ) <[CHRISTENSENC@michigan.gov](mailto:CHRISTENSENC@michigan.gov)>; Doll, Jeanette (DTMB) <[dolli@michigan.gov](mailto:dolli@michigan.gov)>; Shane, Kirby (DEQ) <[SHANEK@michigan.gov](mailto:SHANEK@michigan.gov)>; Lundy, Anastasia (DEQ) <[LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)>; Adelman, Mitch (DEQ) <[ADELMANM@michigan.gov](mailto:ADELMANM@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

Hi Jen,

As we discussed in our conference call, Melissa Sambiagio and I are the points of contact to order water testing bottles or any supplies necessary for the laboratory related to Flint. All individuals listed above are to be copied on any order request. In the event of an after office hours need, we can be reached as follows:

Tara Premoe	517-749-0796	Office hours 7:30 am to 4:00 pm
Melissa Sambiagio	517-404-0000	Office hours 7:30 am to 4:00 pm

After office hours contact by phone will be necessary, as neither of us have a state issued phone for which we receive email communications. Once we receive a phone alert, we can access email to determine the course of action.

In order to avoid the enormous shipping costs for overnight delivery of water testing bottles, please keep us apprised on the status of inventory and anticipated need.

Thank you.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

**Melissa Sambiago**  
DTMB, Commodities Division  
PH: (517) 284-7016  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 3:12 PM  
**To:** Shane, Kirby (DEQ); Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ); Cook, Rebecca (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Follow up to today's conference call:

Bottle orders may be requested by Mitch Adelman & Jen Wolf via their state email address or the MSP-EOC-MDEQ address to Tara Premoe & Melissa Sambiagio with a copy to Kirby.

The address for the warehouse is Dell Warehouse, 4315 N Clio Rd, Flint, MI 48504

---

**From:** Shane, Kirby (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:59 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Can we conference call at 12:30 today to discuss this? I don't know how to setup a conference call from here, but if everyone is on board and someone can set up the call and distribute the call in number to the group that would be great!

Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shane@michigan.gov](mailto:shane@michigan.gov)  
517.335.9888

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:52 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Please see the email from yesterday afternoon, response from Jeanette Doll. FEMA is listed as taking over "collection bottles for water testing." This was also discussed in my phone discussion with her this morning.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:48 AM  
**To:** Lundy, Anastasia (DEQ); Premoe, Tara (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Ah... I see where the confusion lies. They have taken over purchases of **Drinking Water**. Not test kit bottles.

---

**From:** Lundy, Anastasia (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:33 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

(Including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*  
*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:32 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB)  
**Subject:** RE: Conference Call ref. Purchases

Hi Jen,

This is opposite from the phone conversation I just had with Jeanette Doll and emails that FEMA will be taking over the water bottles. We have several orders pending with VWR for bottles, some shipping Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:26 AM  
**To:** Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Subject:** Conference Call ref. Purchases

Can we have a conference call today to discuss? As far as purchasing goes. The lab is still making all of their purchases. This includes test bottles, labels, etc. as this is an activity being conducted for DEQ, not a provision of life services to the public. At times the SEOC rep is involved because it is after hours, on a weekend or like this week, a holiday where shipping needed to be expedited. We should not run into

this problem again from here on out as we have provided clearer direction to Command Staff in the SEOC on our target numbers per George Krisztian.

All billing should still be going through the laboratory or RRD as always. If we need resources that our vendors cannot supply then we get with DTMB and possibly FEMA. We should be getting more direction here today on what and when FEMA will be integrating.

F/Lt. Jen Wolf  
SEOC OPS Health and Env MDEQ  
SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)



---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 2:25 PM  
**To:** Hummel, Mindy (DTMB)  
**Cc:** Cook, Rebecca (DTMB);Sambiagio, Melissa (DTMB);Maynard, Sharon (DTMB)  
**Subject:** Re: New Cell phone request - related to State emergency

Mindy, I just signed off on them.

Sent from my iPhone

On Jan 21, 2016, at 2:24 PM, Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)> wrote:

I'll need the forms by 3:00 if I'm going to be able to get the order in on time for shipping tonight.

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone  
517-230-2447 Cell  
517-241-4856 Fax  
<image002.png>

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:26 PM  
**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

Downtown. Constitution Hall  
First Floor, North Tower  
Procurement is off of the main entrance lobby.  
Both are by Pillar Q2

---

**From:** Hummel, Mindy (DTMB)  
**Sent:** Thursday, January 21, 2016 12:23 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** RE: New Cell phone request - related to State emergency

No problem at all.

Are they located downtown or Secondary?

Mindy Hummel  
DTMB/Financial Services  
517-373-2215 Phone

517-230-2447 Cell

517-241-4856 Fax

<image004.png>

---

**From:** Cook, Rebecca (DTMB)

**Sent:** Thursday, January 21, 2016 12:22 PM

**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>

**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>

**Subject:** RE: New Cell phone request - related to State emergency

Definite yes on that.

Knew I could count on you -- thanks a million Mindy!

---

**From:** Hummel, Mindy (DTMB)

**Sent:** Thursday, January 21, 2016 12:16 PM

**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>

**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>

**Subject:** RE: New Cell phone request - related to State emergency

If I can get them ordered today, they will be delivered tomorrow.

Will they need access to mail, contacts and calendar?

Mindy Hummel

DTMB/Financial Services

517-373-2215 Phone

517-230-2447 Cell

517-241-4856 Fax

<image004.png>

---

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**To:** Hummel, Mindy (DTMB) <[HummelM@michigan.gov](mailto:HummelM@michigan.gov)>

**Cc:** Sambiagio, Melissa (DTMB) <[SambiagioM@michigan.gov](mailto:SambiagioM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>

**Subject:** RE: New Cell phone request - related to State emergency

Melissa can you please coordinate? Please interrupt leadership in any meeting for any signatures needed.

Thank you.

---

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**Cc:** Hamilton, Kelly (DTMB) <[HamiltonK9@michigan.gov](mailto:HamiltonK9@michigan.gov)>; Davis, Stephen (DTMB) <[daviss1@michigan.gov](mailto:daviss1@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>

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Once it has signed approval, please e-mail the form to me and I'll get them ordered.

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Steve Rigg and Melissa Sambiagio

I'm in meetings and Melissa will work with you to get any forms filled out, coordinate our sign offs etc.

Thanks for checking on that

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Hi Rebecca:  
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Rebecca Cook  
State of Michigan  
DTMB Procurement  
Commodities Division Director  
517-284-7008

<image001.gif>

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FYI -- no action needed.

Just wanted to share we have a second staffer stepping up and delivering great customer service related to Flint. Melissa has volunteered to take phone questions

related to water sampling bottles during the SEOC hours of 8 am to 8 pm. Or whenever the phone rings.

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**Sent:** Thursday, January 21, 2016 10:22 AM  
**To:** Wolf, Jennifer (DNR) <WOLFJ1@michigan.gov>  
**Cc:** Sambiagio, Melissa (DTMB) <SambiagioM@michigan.gov>; Campbell, Mary Jo (DEQ) <CAMPBELLM3@michigan.gov>; Austin, Dawn (DEQ) <AUSTIND3@michigan.gov>; Smith, Carol (DEQ) <SMITHC@michigan.gov>; Pieper, Julia (DEQ) <PIEPERJ2@michigan.gov>; Christensen, Christen (DEQ) <CHRISTENSENC@michigan.gov>; Doll, Jeanette (DTMB) <dolli@michigan.gov>; Shane, Kirby (DEQ) <SHANEK@michigan.gov>; Lundy, Anastasia (DEQ) <LundyA1@michigan.gov>; Adelman, Mitch (DEQ) <ADELMANM@michigan.gov>; Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Subject:** Order Contacts - Laboratory Water Testing Bottles and Supplies Need for Flint

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Thank you.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

**Melissa Sambiagio**  
DTMB, Commodities Division  
PH: (517) 284-7016  
[sambiagiom@michigan.gov](mailto:sambiagiom@michigan.gov)

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**Sent:** Wednesday, January 20, 2016 3:12 PM  
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**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

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**Sent:** Wednesday, January 20, 2016 9:59 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Can we conference call at 12:30 today to discuss this? I don't know how to setup a conference call from here, but if everyone is on board and someone can set up the call and distribute the call in number to the group that would be great!

Kirby Shane  
Chief, Inorganic Unit  
Laboratory Services  
MichiganDEQ  
[shanek@michigan.gov](mailto:shanek@michigan.gov)  
517.335.9888

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:52 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ); Smith, Carol (DEQ); Pieper, Julia (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Please see the email from yesterday afternoon, response from Jeanette Doll. FEMA is listed as taking over "collection bottles for water testing." This was also discussed in my phone discussion with her this morning.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:48 AM  
**To:** Lundy, Anastasia (DEQ); Premoe, Tara (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

Ah... I see where the confusion lies. They have taken over purchases of **Drinking Water**. Not test kit bottles.

---

**From:** Lundy, Anastasia (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:33 AM  
**To:** Premoe, Tara (DEQ); Wolf, Jennifer (DNR); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB); Campbell, Mary Jo (DEQ); Austin, Dawn (DEQ)  
**Subject:** RE: Conference Call ref. Purchases

(Including Dawn and Mary Jo on this email string.)

*Anastasia M. Lundy*  
*Administration, RRD-DEQ*  
*Phone: 517-284-5129 / Fax: 517-373-2637*  
*Email: [LundyA1@michigan.gov](mailto:LundyA1@michigan.gov)*

---

**From:** Premoe, Tara (DEQ)  
**Sent:** Wednesday, January 20, 2016 9:32 AM  
**To:** Wolf, Jennifer (DNR); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Cc:** Sambiagio, Melissa (DTMB)  
**Subject:** RE: Conference Call ref. Purchases

Hi Jen,

This is opposite from the phone conversation I just had with Jeanette Doll and emails that FEMA will be taking over the water bottles. We have several orders pending with VWR for bottles, some shipping Friday and another shipment next week. Should these bottles be put on hold pending discussion with FEMA?

Thank you.

**Tara Premoe**  
Administration  
Department of Environmental Quality  
PH: (517) 284-5012  
[premoet@michigan.gov](mailto:premoet@michigan.gov)

---

**From:** Wolf, Jennifer (DNR)  
**Sent:** Wednesday, January 20, 2016 9:26 AM  
**To:** Premoe, Tara (DEQ); Lundy, Anastasia (DEQ); Shane, Kirby (DEQ); Adelman, Mitch (DEQ)  
**Subject:** Conference Call ref. Purchases

Can we have a conference call today to discuss? As far as purchasing goes. The lab is still making all of their purchases. This includes test bottles, labels, etc. as this is an activity being conducted for DEQ, not a provision of life services to the public. At times the SEOC rep is involved because it is after hours, on a weekend or like this week, a holiday where shipping needed to be expedited. We should not run into this problem again from here on out as we have provided clearer direction to Command Staff in the SEOC on our target numbers per George Krisztian.

All billing should still be going through the laboratory or RRD as always. If we need resources that our vendors cannot supply then we get with DTMB and possibly FEMA. We should be getting more direction here today on what and when FEMA will be integrating.

F/Lt. Jen Wolf  
SEOC OPS Health and Env MDEQ  
SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)



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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Friday, January 22, 2016 1:00 AM  
**To:** Cook, Rebecca (DTMB)  
**Cc:** Maynard, Sharon (DTMB)  
**Subject:** Re: Oversight of Flint Spending - FYI

Thank you.

Sent from my iPhone

On Jan 21, 2016, at 9:17 PM, Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)> wrote:

FYI – tonight's MIRS

*Meekhof Wants Auditor General To Oversee Flint Spending*

The Governor's emergency \$28 million for water and water supplies for Flint will likely be taken up in the Senate Appropriations Committee next Tuesday, but Senate Majority Leader Arlan MEEKHOF (R-West Olive) added he wants Auditor General oversight over this and all other money sent to the city.

Approving funding for the city now doesn't necessarily mean a blank check from the Legislature is in Flint's future, however, he said.

"We haven't even determined what the lead levels are in people, we haven't determined the severity of the issues, we haven't determined the science as to what is going to take care of the issue," he said.

Meekhof said he understands the urgency and plans to act quickly, but wants to "make sure that what we're spending the money on is actually going to solve problems."

Rebecca

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Sunday, January 24, 2016 9:11 PM  
**To:** Stephen, Kimberly (DHHS)  
**Cc:** Cook, Rebecca (DTMB); Maynard, Sharon (DTMB); Sanches, Christine (DHHS)  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Kim, we will be sending out communication info ASAP. We all share the same concerns regarding tracking. I had a call with DTMB, Budget Office, and MSP on Friday to set the table for communicating tracking procedures. We will follow up shortly.

Thanks,  
Jeff

Sent from my iPhone

On Jan 24, 2016, at 9:08 PM, Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)> wrote:

Thank you for the reply tonight. I am not expecting assistance in formulating a response to MSP but rather wanted to make you aware of the request to avoid duplicate reporting. There are many people involved and it is very confusing as to who is responsible for what. The more we can keep the lines of communications open the better. Please include DHHS in any meeting on Home Depot invoice payments since we will be ultimately responsible. We can talk in more detail on Monday.

Sent from my iPhone

On Jan 24, 2016, at 8:24 PM, Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)> wrote:

Kim

To clarify, DTMB Procurement is not in a position to track usage and spend, so we are unable to assist in your response to MSP. Please work with Jeanette and Chris. The SEOC has asked everyone to track receipts and enter them into MySims software.

Buyer Steve Rigg is involved to the extent that Home Depot is asking questions about unpaid invoices, and Steve facilitated getting invoice copies and a meeting set up. The State is running close to its account credit limit with Home Depot and needs invoices cleared for payment.

We are still seeking clarification on the new FEMA process, and anticipate more information next week.

I'm happy to talk more on Monday, but thought you may also need an immediate response.

Please call my cell for any emergency requests, instead of or in addition to email.

Rebecca  
517-930-4015

On Jan 24, 2016, at 4:34 PM, Maynard, Sharon (DTMB)  
<[maynards1@michigan.gov](mailto:maynards1@michigan.gov)> wrote:

Kim Sorry just getting to Friday's emails!

I am copying Rebecca and she can comment but also be aware that we are looking to have staff coordinate with the SEOC and communication will be addressed as it is confusing. Please feel free to reach out to Chris and Jeanette at anytime tho.

---

**From:** Stephen, Kimberly (DHHS)  
**Sent:** Friday, January 22, 2016 11:09 AM  
**To:** Maynard, Sharon (DTMB)  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Hi Sharon,

Would it be possible for Rebecca to include me in her communication on this important matter? It is not clear to me from the e-mail below if she is still seeking clarification on this issue or if I should contact to Jeanette Doll and Chris Christensen myself to obtain answers.

We have received the following request from State Police for information:

**From:** MSP-seocfgc  
**Sent:** Wednesday, January 20, 2016 4:23 PM  
**To:** Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>  
**Subject:** Costs for City of Flint

Hi Susan:

Richard Thelen gave me your name as his financial point of contact at DHHS. The immediate need is information on the costs incurred by DHHS for water, water filters, and replacement cartridges. FEMA has asked for this information – even if some of the figures are an estimate – so they have a ballpark idea.

If you could get some numbers to me tomorrow, I'd appreciate it. Please include all of your costs related to Flint, including those that were paid for with the special appropriation that you received in October. I will be providing some guidance on how costs should be tracked for state disaster assistance and possible federal assistance.

If you have any questions, please let me know.

Thanks,  
Penny Burger

Michigan State Police  
Emergency Operations Center  
Financial Section Chief  
(517)336-2688

Kim

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Thursday, January 21, 2016 1:39 PM  
**To:** Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:54 PM  
**To:** Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Sheryl likely already provided you an update, but just in case she did not...

---

**From:** Thompson, Sheryl D. (DHHS)  
**Sent:** Thursday, January 21, 2016 12:36 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Thelen, Richard (DHHS) <[ThelenR4@michigan.gov](mailto:ThelenR4@michigan.gov)>  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Hi Steve, in the very beginning October I would send 319 to budget to process and order products from Home Depot.

As product begin getting scarce I began working directly with David as to what we needed vs what was available etc. then I would complete the PO but budget always knew what was coming.

When SEOC and got involved Richard or Brian would ask me to order products to maintain consistency and to continue working with David.

I also have a financial specialist Jeff Sanford who works with me and prepares the 319 for processing for all the filter orders.

He received all of the invoices from Home Depot for the product that we received under our existing POs. He will go through and consolidate the product received with our tracking spreadsheet and signed 319s. Once

That is completed he can create a payment voucher for Home Depot to get paid.

I also just got a message from David that he has 12,000 Brita filters available. He needs direction as to what we want.

I am not approving any orders at this time per directions that FEMA is now ordering.

I'm am available to do whatever is needed.

Sheryl Thompson  
Deputy Director of Field Operations  
Dept of Health & Human Services  
235 S. Grand Ave, Ste 1413  
Lansing, MI 48909  
517-241-5954

On Jan 21, 2016, at 11:36 AM, Rigg, Steve (DTMB)  
<[Rigg5@michigan.gov](mailto:Rigg5@michigan.gov)> wrote:

Chris/Jeanette,

My questions only pertain to Home Depot and the procurement of water filters, bottled water, and supplies needed for repairs. I'm trying to sort out the confusion that David from Home Depot and I have regarding the procurement of these items and the processing of payments. We need to finalize a fluid process for this so that we can avoid further confusion. I want to do everything I can to help, but I first need to understand the current process so I can direct what I have control over to the right people. I don't want there to be a disruption in the incoming flow of these items.

1. What is the current process for ordering these items? David from Home Depot is currently getting calls from a minimum of 4 different people.
2. Response: Sheryl had been the lead until EOC came on board.

3. What is FEMA's role in procuring these items? Apparently a FEMA rep called Brita directly to order filters. Home Depot has cornered the market on all filters from Brita and PUR, so it is suggested that we continue to work directly with David from Home Depot.
4. Response: I agree
5. If FEMA does take over the ordering of filters, water, and supplies, will they agree to work with Home Depot and who is the contact person that could work directly with David from Home Depot?
6. Will FEMA be creating contracts directly with manufacturers or will they utilize current contracted vendors?
7. If FEMA takes over, will they be paying invoices directly or will that continue to be done by the State?
8. What happens when FEMA leaves in 3 months? Good question
9. Who is responsible for entering Home Depot receipts into the MySimms tracking system so that David from Home Depot can send these receipts to that person directly? I have attached the receipts that I have received from Home Depot.
10. Right now Home Depot invoices are sent out monthly because of the 60 day terms in the contract. However, we currently have over \$10,000,000 in outstanding invoices. We had gotten CitiBank to increase our credit limit to \$10,000,000 last week. We requested CitiBank to increase the credit line to \$20,000,000, but that has not yet been approved by CitiBank. To keep the credit line open we need to turn around these invoices much quicker. Citi has an EFT program that a State designee could log into and pull invoices from

immediately to get them paid. Who would be the person that Citi could set up an account with so that they could log in and download invoices for quicker processing?

11. LARA recently purchased items from Home Depot for plumbing supplies. Moving forward, if LARA is to procure any more items through Home Depot can they work directly with David from Home Depot so as to not cause any more delays?

That is all I have at this point. Thanks for any feedback.

***Steve Rigg***

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

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<8970195.pdf>

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, January 26, 2016 7:58 PM  
**To:** Hatch, David (DTMB)  
**Cc:** Sambiagio, Melissa (DTMB)  
**Subject:** RE: Flint Issue Questions from DTMB Procurement

Just seeing this, David. I'm sorry. Feel free to txt me anytime. It's the best way to get me. Do you still need help?

Is there value in getting you a state iphone during this? If yes, please let Melissa know (cc'd).

---

**From:** Hatch, David (DTMB)  
**Sent:** Monday, January 25, 2016 1:56 PM  
**To:** Sharon Maynard <ssmaynard@hotmail.com>; Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Can you get me on this email chain, or at least get me introduced to Penny? After talking to Chris Christensen and his guy Ryan, they told me Penny is the person I should start with.

I feel urgency about my request to her, but I don't know if she does. Your help would be appreciated.

Thanks,  
Dave

---

**From:** Rigg, Steve (DTMB)  
**Sent:** Monday, January 25, 2016 1:51 PM  
**To:** Hatch, David (DTMB) <HatchD@michigan.gov>  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

I'm sure you'll get this sent to you a few times, but a lot of our questions are answered in this email.

***Steve Rigg***  
Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

**DTMB**  
**HELP. CONNECT. SOLVE.**

---

**From:** MSP-seocfgc  
**Sent:** Monday, January 25, 2016 1:31 PM  
**To:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Thompson, Sheryl D. (DHHS) <[ThompsonS2@michigan.gov](mailto:ThompsonS2@michigan.gov)>; Sanford, Jeffery (DHHS) <[SanfordJ3@michigan.gov](mailto:SanfordJ3@michigan.gov)>; Thelen, Richard (DHHS)



<ThelenR4@michigan.gov>

Cc: Burger, Penelope (MSP) <BurgerP@michigan.gov>

Subject: RE: Flint Issue Questions from DTMB Procurement

I will do what I can to address some of these questions.

- 1) Since FEMA arrived on-site in the SEOC, they have been procuring the water resources made available through the federal emergency declaration; water, faucet filters, replacement cartridges, filtered pitchers and water testing kits. If going through an established state contract gets a better price, that is how they are ordering items. If they have a better deal or resource, that is what they do.
- 2) All resources are being delivered to the warehouse located at 4315 N. Clio Road in Flint. Michigan Department of Corrections has warehouse management staff in place to manage the warehouse operations. Receipt of all resources, regardless of who ordered them, is being checked in to the warehouse with packaging slips and I have copies of the FEMA order form as well. We don't do anything special with FEMA purchased resources.
- 3) The State of Michigan has a 25% match requirement for the FEMA dollars spent. DHHS will not get a bill for 25% of anything from FEMA. I work directly with FEMA on the finances through EMHSD as the State Financial Officer, and at this point we have FEMA assistance for 90 days. We are nowhere close to getting a bill from FEMA yet and that is something that I will take care of working with the State Budget Office as needed. I have never sent a bill for match to another state agency.
- 4) At this point in time, we only have a federal declaration of emergency that brings FEMA procured resources for 90 days beginning on the date of declaration, which was January 16, 2016. We don't have any other federal awards that would allow for reimbursement of items purchased before the federal declaration. We have a few requests out at the federal level, but it is a long process and there are no guarantees. Our guarantee is that FEMA will buy water and filters for 90 days.

What I need from state agency financial staff are current expenditures for costs for their own agency on a weekly basis so I can update the State Director here in the SEOC. Costs need to be directly related to the emergency, such as staff overtime in the SEOC or in the field responding to the event, contracts required for response, purchases for items necessary for use in the emergency response -- water, filters, computers for field teams, etc, and fuel for vehicles. This is not an exhaustive list, but gives you the main items. And we have processes in place here in the SEOC for requesting resources to ensure that all items purchased are approved by SEOC command.

I hope this has answered some questions. The biggest assistance a state agency can provide from a financial aspect is weekly updated reports. If you still have questions, please let me know.

Penny Burger  
State Financial Officer  
State Emergency Operations Center  
MSP/EMHSD  
517-336-2688

---

**From:** Doll, Jeanette (DTMB)  
**Sent:** Monday, January 25, 2016 11:41 AM  
**To:** Burger, Penelope (MSP); MSP-seocfgc  
**Subject:** FW: Flint Issue Questions from DTMB Procurement

Penny –

Could someone in your shop assist DHHS with their questions below?

Jeanette

---

**From:** Stephen, Kimberly (DHHS)  
**Sent:** Monday, January 25, 2016 10:12 AM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Thompson, Sheryl D. (DHHS) <[ThompsonS2@michigan.gov](mailto:ThompsonS2@michigan.gov)>; Sanford, Jeffery (DHHS) <[SanfordJ3@michigan.gov](mailto:SanfordJ3@michigan.gov)>  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Awesome! Jeff Sanford is the right person to be working on the invoices. He and I had several conversations on Friday and will continue to work together on the reconciliation.

Appreciate the FEMA the update. It is so very helpful. Do we know where the FEMA filters are being delivered and if/how the receipt of the filters is being tracked? I assume that DHHS will at some point will receive a billing for 25% of the FEMA filter bill so I want to ensure we are tracking receipt of the product. Do we have any confirmation on how the financial reimbursement to FEMA will work? If you are not the correct person to answer these questions, please point me in the right direction.

Sent from my iPad

On Jan 25, 2016, at 8:55 AM, Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

Kim,

There wasn't an actual meeting with Home Depot and DHHS. Last week on Thursday I sent all the receipts and invoices from Home Depot to Jeff Sanford at DHHS. I got Jeff connected with David Khanuja from Home Depot and they have been working through those invoices and Jeff is consolidating that information.

**FEMA** – FYI. I have been informed from Home Depot that someone from FEMA ordered approximately \$330,000 worth of filters last week and approximately another \$1,000,000 worth of filters on Saturday night.

*Steve Rigg*

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

<image002.png>

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Monday, January 25, 2016 6:22 AM  
**To:** Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>  
**Cc:** Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>; Sanches, Christine (DHHS) <[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Subject:** Re: Flint Issue Questions from DTMB Procurement

Kim - Will do.

Steve - can you please let Kim know which DHHS employees were present at the last Home Depot meeting, and copy her on emails relative to invoices in the future? Thank you for this and all of your hard work.

On Jan 24, 2016, at 9:08 PM, Stephen, Kimberly (DHHS) <[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)> wrote:

Thank you for the reply tonight. I am not expecting assistance in formulating a response to MSP but rather wanted to make you aware of the request to avoid duplicate reporting. There are many people involved and it is very confusing as to who is responsible for what. The more we can keep the lines of communications open the better. Please include DHHS in any meeting on Home Depot invoice payments since we will be ultimately responsible. We can talk in more detail on Monday.

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To clarify, DTMB Procurement is not in a position to track usage and spend, so we are unable to assist in your response to MSP. Please work with Jeanette and Chris. The SEOC has asked everyone to track receipts and enter them into MySims software.

Buyer Steve Rigg is involved to the extent that Home Depot is asking questions about unpaid invoices, and Steve facilitated getting invoice copies and a meeting set up. The State is running close to its account credit limit with Home Depot and needs invoices cleared for payment.

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Rebecca  
517-930-4015

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Kim Sorry just getting to Friday's emails!

I am copying Rebecca and she can comment but also be aware that we are looking to have staff coordinate with the SEOC and communication will be addressed as it is confusing. Please feel free to reach out to Chris and Jeanette at anytime tho.

---

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**Sent:** Friday, January 22, 2016 11:09 AM  
**To:** Maynard, Sharon (DTMB)  
**Subject:** FW: Flint Issue Questions from DTMB  
Procurement

Hi Sharon,

Would it be possible for Rebecca to include me in her communication on this important matter? It is not clear to me from the e-mail below if she is still seeking clarification on this issue or if I should contact to Jeanette Doll and Chris Christensen myself to obtain answers.

We have received the following request from State Police for information:

**From:** MSP-seocfgc  
**Sent:** Wednesday, January 20, 2016 4:23 PM  
**To:** Kangas, Susan (DHHS) <[KangasS1@michigan.gov](mailto:KangasS1@michigan.gov)>  
**Subject:** Costs for City of Flint

Hi Susan:

Richard Thelen gave me your name as his financial point of contact at DHHS. The immediate need is information on the costs incurred by DHHS for water, water filters, and replacement cartridges. FEMA has asked for this information – even if some of the figures are an estimate – so they have a ballpark idea.

If you could get some numbers to me tomorrow, I'd appreciate it. Please include all of your costs related to Flint, including those that were paid for with the special appropriation that you received in October. I will be providing some guidance on how costs should be tracked for state disaster assistance and possible federal assistance.

If you have any questions, please let me know.

Thanks,  
Penny Burger

Michigan State Police  
Emergency Operations Center  
Financial Section Chief  
(517)336-2688

Kim

---

**From:** Sanches, Christine (DHHS)  
**Sent:** Thursday, January 21, 2016 1:39 PM  
**To:** Stephen, Kimberly (DHHS)  
<[STEPHENK@michigan.gov](mailto:STEPHENK@michigan.gov)>  
**Subject:** FW: Flint Issue Questions from DTMB  
Procurement

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**From:** Cook, Rebecca (DTMB)  
**Sent:** Thursday, January 21, 2016 12:54 PM  
**To:** Sanches, Christine (DHHS)  
<[SanchesC@michigan.gov](mailto:SanchesC@michigan.gov)>  
**Subject:** FW: Flint Issue Questions from DTMB  
Procurement

Sheryl likely already provided you an update, but just in case she did not...

---

**From:** Thompson, Sheryl D. (DHHS)  
**Sent:** Thursday, January 21, 2016 12:36 PM  
**To:** Rigg, Steve (DTMB) <[RiggS@michigan.gov](mailto:RiggS@michigan.gov)>  
**Cc:** Doll, Jeanette (DTMB) <[dollj@michigan.gov](mailto:dollj@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; Thelen, Richard (DHHS) <[ThelenR4@michigan.gov](mailto:ThelenR4@michigan.gov)>  
**Subject:** Re: Flint Issue Questions from DTMB  
Procurement

Hi Steve, in the very beginning October I would send 319 to budget to process and order products from Home Depot.

As product begin getting scarce I began working directly with David as to what we needed vs what was available etc. then I would complete the PO but budget always knew what was coming.

When SEOC and got involved Richard or Brian would ask me to order products to maintain consistency and to continue working with David.

I also have a financial specialist Jeff Sanford who works with me and prepares the 319 for processing for all the filter orders.

He received all of the invoices from Home Depot for the product that we received under our existing POs. He will go through and consolidate the product received with our tracking spreadsheet and signed 319s. Once That is completed he can create a payment voucher for Home Depot to get paid.

I also just got a message from David that he has 12,000 Brita filters available. He needs direction as to what we want.

I am not approving any orders at this time per directions that FEMA is now ordering.

I'm am available to do whatever is needed.

Sheryl Thompson  
Deputy Director of Field Operarions  
Dept of Health & Human Services  
235 S. Grand Ave, Ste 1413  
Lansing, MI 48909  
517-241-5954

On Jan 21, 2016, at 11:36 AM, Rigg, Steve (DTMB)  
<[RiggS@michigan.gov](mailto:RiggS@michigan.gov)> wrote:

Chris/Jeanette,

My questions only pertain to Home Depot and the procurement of water filters, bottled water, and supplies needed for repairs. I'm trying to sort out the confusion that David from Home Depot and I have regarding the procurement of these items and the processing of payments. We need to finalize a fluid process for this so that we can avoid further confusion. I want to do everything I can to help, but I first need to understand the current process

so I can direct what I have control over to the right people. I don't want there to be a disruption in the incoming flow of these items.

1. What is the current process for ordering these items? David from Home Depot is currently getting calls from a minimum of 4 different people.
2. Response: Sheryl had been the lead until EOC came on board.
3. What is FEMA's role in procuring these items? Apparently a FEMA rep called Brita directly to order filters. Home Depot has cornered the market on all filters from Brita and PUR, so it is suggested that we continue to work directly with David from Home Depot.
4. Response: I agree
5. If FEMA does take over the ordering of filters, water, and supplies, will they agree to work with Home Depot and who is the contact person that could work directly with David from Home Depot?
6. Will FEMA be creating contracts directly with manufacturers or will they utilize current contracted vendors?

7. If FEMA takes over, will they be paying invoices directly or will that continue to be done by the State?
8. What happens when FEMA leaves in 3 months? Good question
9. Who is responsible for entering Home Depot receipts into the MySimms tracking system so that David from Home Depot can send these receipts to that person directly? I have attached the receipts that I have received from Home Depot.
10. Right now Home Depot invoices are sent out monthly because of the 60 day terms in the contract. However, we currently have over \$10,000,000 in outstanding invoices. We had gotten CitiBank to increase our credit limit to \$10,000,000 last week. We requested CitiBank to increase the credit line to \$20,000,000, but that has not yet been approved by CitiBank. To keep the credit line open we need to turn around these invoices much quicker. Citi has an EFT program that a State designee could log into and pull invoices from immediately to get them paid. Who would be the person that Citi could set up an account with so that they could log in and download invoices for quicker processing?



11. LARA recently purchased items from Home Depot for plumbing supplies. Moving forward, if LARA is to procure any more items through Home Depot can they work directly with David from Home Depot so as to not cause any more delays?

That is all I have at this point. Thanks for any feedback.

***Steve Rigg***

Buyer, Commodities Division  
DTMB-Procurement  
(517)284-7043  
[RiggS@michigan.gov](mailto:RiggS@michigan.gov)

<image002.png>

<7970216.pdf>

<7971407.pdf>

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<7971409.pdf>

<7971410.pdf>

<7971411.pdf>

<7973654.pdf>

<8970194.pdf>

<8970195.pdf>

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, January 27, 2016 2:20 PM  
**To:** Cook, Rebecca (DTMB)  
**Subject:** RE: Bluewater water purifiers help Flint

I just talked to Caleb. Feel free to stop by.

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, January 27, 2016 2:18 PM  
**To:** Doll, Jeanette (DTMB) <dollj@michigan.gov>  
**Cc:** Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Subject:** RE: Bluewater water purifiers help Flint

Expecting a call from our PIO shortly (he is in Flint I think) to discuss our approach. Waiting to have a second meeting with Jeff until after I hear from Caleb. (Kurt called Tori and Caleb for us...)

---

**From:** Doll, Jeanette (DTMB)  
**Sent:** Wednesday, January 27, 2016 2:15 PM  
**To:** Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
**Cc:** Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Subject:** RE: Bluewater water purifiers help Flint

Rebecca –

I talked with our Operations Chief who is going to work with Genesee County's Emergency Operations Center to reach out to the businesses. Thank you for sharing!

Any decision on point of contact, number, etc. for companies with services to offer? Just received another email from the PIOs.

Jeanette

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Wednesday, January 27, 2016 1:58 PM  
**To:** Doll, Jeanette (DTMB) <dollj@michigan.gov>  
**Cc:** Brownlee, Jeff (DTMB) <BrownleeJ@michigan.gov>  
**Subject:** Re: Bluewater water purifiers help Flint

Jeanette

Will they assign someone to call these two entities today and inform them?

Rebecca

On Jan 27, 2016, at 1:31 PM, Doll, Jeanette (DTMB) <dollj@michigan.gov> wrote:

Rebecca – Please see note below. I will share with Logistics Chief!

---

**From:** MSP-EOC-MDEQ  
**Sent:** Wednesday, January 27, 2016 12:43 PM  
**To:** Doll, Jeanette (DTMB) <[dolli@michigan.gov](mailto:dolli@michigan.gov)>  
**Cc:** MSP-EOC-MDTMB <[MSP-EOC-MDTMB@michigan.gov](mailto:MSP-EOC-MDTMB@michigan.gov)>  
**Subject:** RE: Bluewater water purifiers help Flint

<https://www.wqa.org/Find-Products#/keyword/bluewater>

The Bluewater filters are not NSF/ANSI 53 for lead reduction.

F/Lt Jen Wolf  
SEOC OPS Health and Env MDEQ  
SEOC Desk 517-336-2676  
[MSP-EOC-MDEQ@michigan.gov](mailto:MSP-EOC-MDEQ@michigan.gov)

---

**From:** Doll, Jeanette (DTMB)  
**Sent:** Wednesday, January 27, 2016 9:46 AM  
**To:** MSP-EOC-MDEQ  
**Cc:** MSP-EOC-MDTMB  
**Subject:** FW: Bluewater water purifiers help Flint

Could we have someone look into the water purifier (attached) to see if it meets NSF standards? The unit was already installed in a couple locations within Flint (below) and would like to make sure the units will not need to be replaced.

Thank you –

Jeanette

---

**From:** Cook, Rebecca (DTMB)  
**Sent:** Tuesday, January 26, 2016 6:10 PM  
**To:** Doll, Jeanette (DTMB) <[dolli@michigan.gov](mailto:dolli@michigan.gov)>  
**Subject:** FW: Bluewater water purifiers help Flint

Jeanette

As we previously discussed, you are my contact to triage and route external inquiries. Bluewater called me this morning, and I requested an email with more information.

It is unclear to me whether this unit meets the standards used for the faucet water filter sourcing. Can a resource be identified to check? If not, someone may want to consider reaching out to the two locations that received donated units.

Thanks for routing this into the correct hands.

Rebecca

---

**From:** Lin Guo [<mailto:ag@bluewater.se>]  
**Sent:** Tuesday, January 26, 2016 4:27 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Niclas Wullt <[nw@bluewater.se](mailto:nw@bluewater.se)>; David Noble <[dn@bluewater.se](mailto:dn@bluewater.se)>; Daniel Hertzberg <[dh@bluewater.se](mailto:dh@bluewater.se)>; Kim Börjesson <[kb@bluewater.se](mailto:kb@bluewater.se)>  
**Subject:** Bluewater water purifiers help Flint

Hi Rebecca,

It was nice talking to you this morning, we will appreciate if you can read this email and forward to related team who in charge of procurement for Flint water crisis.

Bluewater is a Swedish company that has innovated a patented second-generation reverse osmosis technology which turns tap water into healthier drinking water by removing up to 99% of almost all known water-borne contaminants; plus, cuts the water wastage common to traditional reverse osmosis systems by up to 82%.

Bluewater has been selling in the USA for the past 18 months, based out of Overland Park, Kansas, where we also have our warehouse that serves customers across the United States. We are a sister company to Blueair, which is one of the major air purifier companies in the United States, based out of Chicago.

Last week saw us donate and install two of our high performance water purifiers in Flint, Michigan, in response to their crisis as our water purifiers excel at removing lead and other toxic metals from residential drinking water. While we applaud people donating water bottles, it is only a short term solution, whereas as water purifiers are both a short-term and a long term solution.

One Bluewater Pro machine was installed at the Community Center at Catholic Charities of Shiawassee and Genesee Counties, where they serve 1,000 meals every day to local residents. The other unit was installed at Shelter of Flint, the largest shelter at Flint.

Both units were installed by Bluewater's Product Manager who traveled to Flint personally. FYI, many bottled water brands in the USA use reverse osmosis to purify their water. Using a Bluewater unit is a cheaper long-term option that also contributes to a better environment because they negate the need for plastic bottles as they deliver purifier water 'on demand'. (a side note, as you may already know, "Pepsi Admits That Its Aquafina Bottled Water is Just Tap Water, Coca-Cola's Dasani Is Next" see news of today <http://healthycures.org/pepsi-admits-that-its-aquafina-bottled-water-is-just-tap-water-coca-colas-dasani-is-next>)

The Bluewater Pro400 reverse osmosis water purifiers we donated to Flint can produce 52 gallons of purified water per hour, which means we can supply 2,700 people a total of two liters of clean water free of lead and other toxic metals every day. This translates into saving 4,800 one-liter bottles being put into the environment every day!

The compact Pro is designed for professional use, in restaurants, hotels, schools, hospitals and laboratories. Installing just 38 of our units in Flint would deliver the 100,000 residents two liters of totally clean water every day - meeting their basic daily human health need for drinking water.

Bluewater harnesses our own patented second-generation reverse osmosis technology, which removes practically all toxic contamination from tap drinking water including lead. The other contaminants we remove include other heavy metals, pesticides, medical residues, and dioxins and petro chemicals.

What also makes our water purifiers unique is that our unique technology ALSO radically increases the efficiency of water treatment, which translates into a Bluewater unit using 82% less water to generate clean water than a traditional reverse osmosis unit.

Reverse osmosis technology purifies water by forcing untreated water through a semi-permeable filter or 'membrane'. Bluewater membranes will block toxic metals and chemicals down to 0.0001 micron (that's 500,000 times smaller than a human hair). Our technology also delivers water 'on-demand', which means no need for a holding tank

As a business, we cannot afford to donate an endless number of units free to Flint, but due to the special nature of the situation (and the fact that most of us are parents of small children and have huge sympathy for those impacted by the crisis) we want to step up even more by offering Michigan State prices that are very substantially discounted. In fact, we want to offer you a one-off purchase opportunity that sees us offering you our products at the manufacturing price (i.e. we make no margin on the deal).

This would see the products we recommend you consider coming in at:

**Pro 400C-HF(high flow) ( this is the model we donated to Flint) \$1920 + shipping**

(suitable for professional use, hospitals, labs, restaurant, coffee shop, office building)

- Superior Osmosis Technology
- Direct flow, no need of tank
- Capacity up to 52 gallon per hour
- Clean water delivery rate of 52 gallon per hour
- Cleaning brackish water, up to 7500 ppm
- water quality monitor
- Calibration of cleanliness
- Advanced leak protection system
- Clean water per kWh: 433L/kWh (114.3gallon/kWh)
- Clean water rate: 222L/hour (58.6 gallons/hour)
- Dimensions: 225 x 466 x 460mm (8.9 x 18.3 x 18.10 inch)
- Weight: 29kgs (64lb)
- Water recovery rate: 60-70%

The other two models we could consider as an alternative (the only difference is that the water flow is less powerful) are:

**Spirit 300-HF(high flow) \$1350 + shipping**

Compact design that fits into any contemporary kitchen

- Designed for Municipal water
- Superior Osmosis Technology
- Capacity up to 43.2 gallon per hour
- Director Flow, no need of tank
- Extra compact Design
- Advanced leak protection system
- Clean water per kWh: 377L/kWh (99.5 gallons/kWh)
- Clean water rate: of 99L/hour (26.2 gallons/hour)
- Dimensions: 150 x 462 x 365 mm( 5.9 x 18.2 x 14.4 inches)
- Weight: 15 kgs (33lb)

- Water recovery rate: 40-60%

**Spirit 300Cp-HR(high rejection) \$1500 + shipping**

Compact design that fits into any contemporary kitchen, can connect to dish washer, coffee maker, ice machine/refrigerator

- Designed for Municipal water
- Superior Osmosis Technology
- Capacity up to 43.2 gallon per hour
- Director Flow, no need of tank
- Extra compact Design
- Advanced leak protection system
- Clean water per KWh: 377L/kWh (99.5 gallons/kWh)
- Clean water rate: of 99L/hour (26.2 gallons/hour)
- Dimensions: 150 x 462 x 365 mm( 5.9 x 18.2 x 14.4 inches)
- Weight: 15 kgs (33lb)
- Water recovery rate: 40-60%

Please do not hesitate to get back if there is anything additional information you need from us. Attached is our catalog and photo how it looks in the kitchen.

Here are two reference you can contact at Flint, they are using our donated water purifiers now for producing pure water

Liz Ruediger  
Director of Operations & Development  
Shelter of Flint  
605 N. Saginaw Street, Suite 2A  
Flint, MI 48502  
810-600-4537

Shegos, Sheila [sshegos@ccscc.org](mailto:sshegos@ccscc.org)  
810 232 9950  
Catholic Charities of Shiawassee and Genesee Counties  
901 Chippewa St.  
Flint, MI 48503  
[www.ccscc.org](http://www.ccscc.org)

To discover more about us at Bluewater, please visit us at [www.bluewatergroup.com](http://www.bluewatergroup.com)

I look forward to hearing from you and let's help Flint together.

Best Regards  
Lin

Lin Guo  
National Sales Representative | Bluewater USA Inc.  
Tel: +1 844 225 8392 (1-844-2Bluewater)  
Cell: +1 913 593 3115 E: [ag@bluewatergroup.com](mailto:ag@bluewatergroup.com)  
7603 W 145th Terrace, Overland Park, Kansas 66223, USA  
Headquarter:

Bluewater Group  
Danderydsgatan 11, 114 26 Stockholm, Sweden  
[www.bluewatergroup.com](http://www.bluewatergroup.com)  
*Turning tap water into healthier drinking water.*  
<image001.jpg>

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, January 27, 2016 2:29 PM  
**To:** Buhs, Caleb (DTMB);Cook, Rebecca (DTMB)  
**Cc:** Weiss, Kurt (DTMB)  
**Subject:** RE: Next Step

Thanks, Caleb! Kurt, sorry we roped you into this.

---

**From:** Buhs, Caleb (DTMB)  
**Sent:** Wednesday, January 27, 2016 2:27 PM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>; MSP-EOC-MDCH <[MSP-EOC-MDCH@michigan.gov](mailto:MSP-EOC-MDCH@michigan.gov)>  
**Cc:** Weiss, Kurt (DTMB) <[WeissK1@michigan.gov](mailto:WeissK1@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Next Step

Jeanette,

After talking this over with Jeff Brownlee, there does not seem to be any legal reason why they couldn't add a button, as was requested below. There are a few things that need to be considered though.

- Expectations need to be set for the response to these inquiries. It would be best if the receiver of these submissions was located at the SEOC, so they could review with the appropriate agency leads and determine an appropriate response. If it is expected that DTMB Procurement serve as the contact, the response to vendors will be severely delayed and in some cases they may not be able to get a response back at all.
- If it is determined that a submission is feasible, the SEOC should work with Procurement to make sure all proper procedures are followed.
- Shannon Banner has provided some language to the SEOC for the button that should be utilized.

Feel free to contact me if you need any further help. I've been working at the JIC in Flint today and am available by cell at 517-303-4038.

Thanks,

**Caleb Buhs**

Public Information Officer  
Dept. of Technology, Management and Budget  
O: 517-241-7422  
C: 517-303-4038  
[buhsc@michigan.gov](mailto:buhsc@michigan.gov)



**HELP. CONNECT. SOLVE.**

---

**From:** MSP-EOC-MDTMB  
**Sent:** Wednesday, January 27, 2016 11:01 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>



**Cc:** MSP-EOC-MDTMB <[MSP-EOC-MDTMB@michigan.gov](mailto:MSP-EOC-MDTMB@michigan.gov)>

**Subject:** FW: Next Step

**Importance:** High

Rebecca --

We received the following email and would like to make sure we are providing accurate information. Please review and we can talk.

Jeanette

---

**From:** MSP-SEOCPIO

**Importance:** High

Can you check with DTMB on this. Tori Sachs with the Gov's Office was considering adding a button on [www.helpforflint.com](http://www.helpforflint.com) to capture vendors who want to pitch their product/idea; however, last I talked with her, there were concerns about violating state procurement processes.

Maybe DTMB has an email account already established for people who want to do business with the state? This is what FEMA has on their website for disasters.

Seems to me this should be handed off to DTMB procurement for a solution.

---

**From:** DeVriendt, Chris [[CDeVriendt@co.genesee.mi.us](mailto:CDeVriendt@co.genesee.mi.us)]

**Sent:** Wednesday, January 27, 2016 7:33 AM

**To:** JICManager; MSP-seoclgc; Adelman, Mitch (DEQ)

**Cc:** Kuzera, Michelle (MSP); Ducharme, Mark (DEQ)

**Subject:** FW: Next Step

Can someone please address this. If there is going to be zero communication with 'vendors', then there needs to be a canned response indicating such. I spend an inordinate amount of time with these missives as they are coming into my work e-mail, calling the LEOC phones, and showing up at the LEOC doorstep pitching their solutions because nobody is communicating with them.

Chris DeVriendt, LVT, MPH  
Emergency Management Manager  
Office of Genesee County Sheriff  
Emergency Management Homeland Security Division  
1002 South Saginaw Street  
Flint, MI 48502  
(810) 257-3064(direct)  
(810) 237-6169 (fax)  
[cdevriendt@co.genesee.mi.us](mailto:cdevriendt@co.genesee.mi.us)

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---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, January 28, 2016 3:06 PM  
**To:** Fortino, Diane (DTMB)  
**Subject:** FW: Revised Engagement Letter  
**Attachments:** Flint Engagement Letter VII.docx; ATT00001.htm

Will you please print this for me? I am on a call and don't want to leave it sitting on the printer. Thank you.

---

**From:** Stibitz, Brom (DTMB)  
**Sent:** Wednesday, January 27, 2016 5:11 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Cc:** Workman, Wayne (TREASURY) <[WorkmanW@michigan.gov](mailto:WorkmanW@michigan.gov)>  
**Subject:** Fwd: Revised Engagement Letter

Wayne - I have asked Jeff Brownlee to take a look at this per our discussion. He may have some questions for you.

Thanks,

Brom Stibitz

Begin forwarded message:

**From:** "Workman, Wayne (TREASURY)" <[WorkmanW@michigan.gov](mailto:WorkmanW@michigan.gov)>  
**Date:** January 27, 2016 at 11:24:56 AM EST  
**To:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Cc:** "Saxton, Thomas (Treasury)" <[SaxtonT@michigan.gov](mailto:SaxtonT@michigan.gov)>  
**Subject:** FW: Revised Engagement Letter

Per our conversation, one more mail to follow

Wayne L. Workman  
Deputy State Treasurer  
Michigan Department of Treasury

---

**From:** Saxton, Thomas (Treasury)  
**Sent:** Monday, January 25, 2016 5:25 PM  
**To:** Steckelberg, Larry (TREASURY) <[SteckelbergL@michigan.gov](mailto:SteckelbergL@michigan.gov)>; Workman, Wayne (TREASURY) <[WorkmanW@michigan.gov](mailto:WorkmanW@michigan.gov)>; Khouri, Nick (TREASURY) <[KhouriN@michigan.gov](mailto:KhouriN@michigan.gov)>  
**Subject:** Fwd: Revised Engagement Letter

I have not looked at this yet. Nick - I connected with Rich.  
We seem to be on the same page with him. Then he and I called Mark. This is the result.

Sent from my iPhone

Begin forwarded message:

**From:** "Davidoff, Mark (US - Detroit)" <[mdavidoff@deloitte.com](mailto:mdavidoff@deloitte.com)>  
**Date:** January 25, 2016 at 3:27:51 PM EST

**To:** "Saxton, Thomas (Treasury)" <[SaxtonT@michigan.gov](mailto:SaxtonT@michigan.gov)>  
**Cc:** "Schwerdtfeger, Kathryn (US - Austin)" <[kschwerdtfeger@deloitte.com](mailto:kschwerdtfeger@deloitte.com)>  
**Subject:** Revised Engagement Letter

Tom –

Attached is the revised engagement letter.

Look forward to your thoughts.

**Mark Davidoff**  
Michigan Managing Partner  
Deloitte LLP

Office: 313-396-3317  
Mobile: 248-705-1996  
200 Renaissance Center  
Detroit, Michigan 48243-1895

*>> Driving towards Detroit 2030    Follow me on Twitter:  
@DavidoffDTW2030*

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v.E.1

January 18, 2016

Mr. John Roberts  
State Budget Director  
State of Michigan  
Romney Building  
111 S. Capitol Avenue  
Lansing, MI 48933

Dear Mr. Roberts,

This engagement letter is to confirm the engagement of Deloitte & Touche LLP ("Deloitte Advisory" or "we" or "our" or "us") to provide the State of Michigan and its agencies and subdivisions, to include the City of Flint (collectively, the "Organization" or "Client" or "you") crisis response and/or recovery services related to the water contamination crisis in the City of Flint Michigan that was signed as a Presidential Emergency Declaration on January 16, 2016 (the "event") described below (the "Services"). This letter is effective as of January 18, 2016.

We understand that the State of Michigan's objectives for this engagement is to have Deloitte support the response and recovery in the following ways:

- Become the trusted advisor and subject matter resource to the Client
- Serve as a liaison on behalf of the City with State, Federal, and other Stakeholders
- Help bring structure and organization to the crisis response and recovery efforts
- Provide other crisis response and recovery services to be defined by the Client as the crisis evolves

## **SCOPE, APPROACH, and DELIVERABLES**

We are prepared to provide consulting services and advice related to the event that will be based on discussions with you as the engagement progresses and as additional information is obtained during the course of the engagement. At this time we anticipate focusing on the following:

<sup>1</sup>As used in this engagement letter, "Deloitte Advisory" means Deloitte & Touche LLP, which provides audit and enterprise risk services; Deloitte Financial Advisory Services LLP, which provides forensic, dispute, and other consulting services; and its affiliate, Deloitte Transactions and Business Analytics LLP, which provides a wide range of advisory and analytics services. Deloitte Transactions and Business Analytics LLP is not a certified public accounting firm. These entities are separate subsidiaries of Deloitte LLP. Please see [www.deloitte.com/us/about](http://www.deloitte.com/us/about) for a detailed description of the legal structure of Deloitte LLP and its subsidiaries. Certain services may not be available to attest clients under the rules and regulations of public accounting.

- Supporting the Mayor in developing a new organization structure and decision matrix that covers governance and management activities of the City.
- Supporting the Mayor in assessing the current state of financial management reporting, understand the unique requirements given recent events, and provide recommendations on enhancing the City's overall financial management processes to provide stakeholders with the variety of information that will be necessary over time.

We anticipate this initial assessment phase of the engagement to last no more than 30 days. At the conclusion of the initial assessment period, a more detailed scope of services will be defined and mutually agreed to by the parties in a formal amendment to this engagement letter.

The Services will be performed in accordance with the *Statement on Standards for Consulting Services* that is issued by the American Institute of Certified Public Accountants ("AICPA").

We will provide our observations, advice, and recommendations, which we anticipate will be delivered orally. Written deliverables may be produced in support of the agreed scope, but will be owned and managed by the Client. The determination of any specific written deliverables to be produced will be agreed to by both parties and documented as the engagement progresses.

#### **ENGAGEMENT STAFFING**

Based on the information received to date, we have structured the following engagement team for the performance of the Services:

Mark Davidoff, Partner and Lead Client Services Partner for the State of Michigan, will oversee all services provided to the State regarding this event.

Rhoda Woo, Managing Director and Leader of Deloitte's National Crisis Management Solutions Practice, will serve as the crisis response advisor providing oversight over the day-to-day operations of the support team.

Kathie Schwerdtfeger, Partner and Leader of Deloitte's National Crisis Recovery Practice will serve as the crisis recovery advisor and will provide oversight over the day-to-day operations of the support team.

Linus Akanoh, Advisory Senior Manager, will serve as the lead senior manager directing the execution of day to day activities of Deloitte staff.

Additional assistance may also be provided by other professionals who will be identified during the course of this engagement. Furthermore, we will modify personnel, as needed, as additional information is received and will be mutually agreed upon with the Client.

#### **FEES, TIMING, AND OTHER SERVICES**

We are prepared to begin work on a mutually agreed-upon date following your acceptance of the terms of this letter.

Our fees will be based on the actual time spent at hourly rates that relate to the levels of experience of the individuals assigned to the engagement.

We anticipate that the estimate of fees for the initial assessment phase will not exceed \$50,000 each week. Should we determine that fees may exceed the weekly estimate, we will provide the Client with prior written notification prior to billing.

Fees for additional phases will be defined in subsequent amendments to this engagement letter.

Our rates are based upon our current understanding of the engagement requirements, our proposed approach, our estimate of the level of effort required, our roles and responsibilities, and any assumptions set forth herein. Fees will be billed biweekly and are payable upon receipt.

In addition to our fees, we will be reimbursed for all reasonable expenses incurred in performing the Services (including, but not limited to, our reasonable travel, meal, lodging, and mileage expenses). These expenses shall be billed at our incurred cost and added to our bi-weekly invoices.

Our fees and expenses are not contingent upon the final resolution of the crisis event that is the subject of this engagement. Based on our experience, issues sometimes arise that require procedures beyond what was initially anticipated. If this should occur, we will discuss it with you prior to performing any additional work.

## **ACKNOWLEDGEMENTS AND AGREEMENTS**

In connection with this engagement, the Client acknowledges and agrees to the following:

- The Client will provide a primary point-of-contact (POC) for the duration of the engagement. The Client POC will help coordinate interviews and meetings, obtain regular status updates, provide quick turnaround on identification or validation of input, and to obtain enterprise risk management knowledge transfer throughout the engagement.
- Timely identification of, availability of, and cooperation from stakeholders and other Client resources required at the various steps of the engagement, particularly for interviews in Phase 1.
- Should access to Client individuals be limited, the timeline and costs will be revised and discussed with you. Fees for this engagement will be billed bi-weekly and payable in accordance with the General Business Terms attached to this Engagement Letter as Exhibit A.
- The engagement will be scheduled to begin on an agreed date. Any delays in project initiation or timely assistance by Client personnel will delay the respective delivery dates and may increase the total fees beyond the amount set forth herein.
- Substantial and meaningful involvement of Client personnel is critical to the success of this engagement. The Client will be responsible for ensuring that the identified personnel actively participate in the planning and execution of this engagement.
- The Client will provide timely feedback, including feedback on each defined deliverable, within five

business days.

- The Client is solely responsible for, among other things: a) the performance of its personnel and agents; b) the accuracy and completeness of all data and information provided to Advisor for purposes of providing the services described; c) making all management decisions, performing all management functions, and assuming all management responsibilities; d) designating a competent management member to oversee the services; e) evaluating the adequacy and results of the services; f) accepting responsibility for the results of the services; and g) establishing and maintaining internal controls, including monitoring ongoing activities.
- Due to the nature of the crisis event, the specific scope of work will likely require modification during the initial phase of the engagement and as additional information is obtained throughout the engagement. Key modifications will be documented in a formal amendment and will be mutually agreed up by the parties.
- Deloitte Advisory may retain copies of the deliverables and any information evidencing Deloitte Advisory's performance of Services and any Client confidential information contained in such retained materials shall remain subject to Deloitte Advisory's confidentiality obligations set forth in the attached General Business Terms.
- Substantial and meaningful involvement of the Client's management officials responsible for coordination and oversight of the crisis response and recovery efforts, *e.g.*: field personnel, subject matter specialists, senior management, key executives, board members] of the State is critical to the success of this engagement. The Client is responsible for ensuring that (1) the identified Client personnel actively participate in both the planning and execution of this engagement and (2) Client personnel will be available to meet with the Deloitte Advisory's team as needed.
- The Client is responsible for all management decisions and external communications with the media, stakeholders, and others. We may provide advice and recommendations regarding the content of such external communications, but the Client will make final decisions. The Client will not disclose Deloitte Advisory's role externally without explicit written permission from us.
- The Client agrees that it will advise us in a timely manner of any applicable legal requirements concerning the Services to be provided by us, including, without limitation, the identification of any reports to be provided by us; the formats of, and filing deadlines for, such reports; and the legal requirements, if any, concerning the retention of our notes, draft reports, or other work product.
- The Services will not constitute an engagement to provide audit, compilation, review, or attestation services as described in the pronouncements on professional standards issued by the AICPA, the Public Company Accounting Oversight Board, or other regulatory body and, therefore, we will not express an opinion or other form of assurance with respect to our services.
- We will not provide any legal advice regarding this engagement or any assurance regarding the outcome of any future audit or regulatory examination or other regulatory action. The Client will be responsible for all regulatory and legal issues with respect to these matters.

- Deliverables provided under this engagement may be disclosed by the Client's independent accountants to the extent required solely in connection with their audit of the Client's financial statements.
- Deliverables provided under this engagement may be disclosed by the Client to the Flint City Council, State of Michigan legislature, and/or federal oversight authorities to include the Federal Emergency Management Agency and other federal agencies supporting the response and recovery efforts of the Client. This information is being provided to these entities for informational purposes and solely in the exercise of their statutory authority over the crisis response and recovery efforts of the Client.

\* \* \* \* \*

During the term of this engagement, the Client may request that we perform additional services that are not encompassed by this engagement letter. Deloitte Advisory may perform such additional services upon receipt of a separate, signed engagement letter with terms and conditions that are acceptable to Deloitte Advisory and the Client.

This engagement letter, together with the General Business Terms attached hereto [as Exhibit A] and made a part hereof, constitute the entire agreement between the Client and Deloitte Advisory with respect to this engagement, supersede all other oral and written representations, understandings, or agreements relating to this engagement, and may not be amended except by the mutual written agreement of the Client and Deloitte Advisory.

Please indicate your acceptance of this agreement by signing this engagement letter in the space provided below and returning this engagement letter to us. A duplicate of this engagement letter is provided for your records.

Very truly yours,

Deloitte & Touche LLP

By: \_\_\_\_\_  
Rhoda Woo, Partner

Accepted and agreed to by the State of Michigan on behalf of itself and its subsidiaries:

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT A — GENERAL BUSINESS TERMS**



1. **Services.** The services provided by Deloitte Advisory (the "Services") under the engagement letter to which these terms are attached (the "Engagement Letter") may include advice and recommendations, but Deloitte Advisory will not make any decisions on behalf of Client in connection with the implementation of such advice and recommendations. For purposes of these terms and the Engagement Letter, "Client" shall mean the entity as defined in the Engagement Letter.

2. **Payment of Invoices.** Client will compensate Deloitte Advisory under the terms of the Engagement Letter for the Services performed and expenses incurred, through the term or effective date of termination of this engagement. Deloitte Advisory's invoices are due upon receipt. If payment is not received within thirty (30) days of receipt of an invoice (a) such invoice shall accrue a late charge equal to the lesser of (i) 1½% per month or (ii) the highest rate allowable by law, in each case compounded monthly to the extent allowable by law, and (b) Deloitte Advisory may also suspend or terminate the Services. Client shall be responsible for any taxes imposed on the Services or on this engagement, other than taxes imposed by employment withholding for Deloitte Advisory's personnel or on Deloitte Advisory's income or property.

3. **Term.** Unless terminated sooner as set forth below, this engagement shall terminate upon the completion of the Services. Either party may terminate this engagement, with or without cause, by giving thirty (30) days' prior written notice to the other party. In the event of a termination for cause, the breaching party shall have the right to cure the breach within the notice period. Deloitte Advisory may terminate this engagement upon written notice to Client if Deloitte Advisory determines that the performance of any part of the Services would be in conflict with law, or independence or professional rules.

4. **Deliverables.**

a) Deloitte Advisory has rights in, and may, in connection with the performance of the Services, use, create, modify, or acquire rights in, works of authorship, materials, information, and other intellectual property (collectively, the "Deloitte Advisory Technology").

b) Upon full payment to Deloitte Advisory hereunder, and subject to the terms and conditions contained herein, (i) the tangible items specified as deliverables or work product in the Engagement Letter (the "Deliverables") shall become the property of Client, and (ii) Deloitte Advisory hereby grants Client a royalty-free, fully paid-up, worldwide, nonexclusive license to use the Deloitte Advisory Technology contained in the Deliverables in connection with the use of such Deliverables. Except for the foregoing license grant, Deloitte Advisory or its licensors retain all rights in and to all Deloitte Advisory Technology.

c) To the extent any Deloitte Advisory Technology provided to Client hereunder constitutes inventory within the meaning of section 471 of the Internal Revenue Code, such Deloitte Advisory Technology is licensed to Client by Deloitte Advisory as agent for Deloitte & Touche Products Company LLC on the terms and conditions contained herein. The rights granted in this Section 4 do not apply to any Deloitte Advisory Technology that is subject to a separate license agreement between Client and any third party (including Deloitte Advisory's affiliates).

5. **Limitation on Warranties.** This is a services engagement. Deloitte Advisory warrants that it shall perform the Services in good faith and with due professional care. DELOITTE ADVISORY

DISCLAIMS ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

6. **Limitation on Damages and Indemnification.**

a) Deloitte Advisory, its subsidiaries and subcontractors, and their respective personnel shall not be liable to Client for any claims, liabilities, or expenses relating to this engagement ("Claims") for an aggregate amount in excess of the fees paid by Client to Deloitte Advisory pursuant to this engagement, except to the extent resulting from the recklessness, bad faith, or intentional misconduct of Deloitte Advisory or its subcontractors. In no event shall Deloitte Advisory, its subsidiaries or subcontractors, or their respective personnel be liable to Client for any loss of use, data, goodwill, revenues, or profits (whether or not deemed to constitute a direct Claim), or any consequential, special, indirect, incidental, punitive, or exemplary loss, damage, or expense relating to this engagement.

b) In circumstances where any limitation on damages or indemnification provision hereunder is unavailable, the aggregate liability of Deloitte Advisory, its subsidiaries and subcontractors, and their respective personnel for any Claim shall not exceed an amount that is proportional to the relative fault that the conduct of Deloitte Advisory and its subcontractors bears to all other conduct giving rise to such Claim.

7. **Client Responsibilities.** Client shall cooperate with Deloitte Advisory in the performance of the Services, including providing Deloitte Advisory with reasonable facilities and timely access to data, information, and personnel of Client. With respect to the data and information provided by Client to Deloitte Advisory or its subcontractors for the performance of the Services, Client shall have all rights required to provide such data and information, and shall do so only in accordance with applicable law and with any procedures agreed upon in writing. Client shall be solely responsible for, among other things (a) the performance of its personnel and agents; (b) the accuracy and completeness of all data and information provided to Deloitte Advisory for purposes of the performance of the Services; (c) making all management decisions, performing all management functions, and assuming all management responsibilities; (d) designating a competent management member to oversee the Services; (e) evaluating the adequacy and results of the Services; (f) accepting responsibility for the results of the Services; and (g) establishing and maintaining internal controls, including monitoring ongoing activities. Deloitte Advisory's performance is dependent upon the timely and effective satisfaction of Client's responsibilities hereunder and timely decisions and approvals of Client in connection with the Services. Deloitte Advisory shall be entitled to rely on all decisions and approvals of Client.

8. **Force Majeure.** Neither party shall be liable for any delays or nonperformance directly or indirectly resulting from circumstances or causes beyond its reasonable control, including fire, epidemic or other casualty, act of God, strike or labor dispute, war or other violence, or any law, order, or requirement of any governmental agency or authority.

9. **Limitation on Actions.** No action, regardless of form, relating to this engagement, may be brought by either party more than one year after the cause of action has accrued, except that an action for nonpayment may be brought by a party not later than one year following the due date of the last payment owing to the party bringing such action.

10. **Independent Contractor.** Each party hereto is an independent contractor and neither party is, nor shall be considered to be, nor shall purport to act as, the other's agent, partner, fiduciary, joint venturer, or representative.

11. **Confidentiality and Internal Use.**

a) All Services and Deliverables shall be solely for Client's benefit, and are not intended to be relied upon by any person or entity other than Client. Client shall not disclose the Services or Deliverables, or refer to the Services or Deliverables in any communication, to any person or entity except (i) as specifically set forth in the Engagement Letter, or (ii) to Client's contractors solely for the purpose of their providing services to Client relating to the subject matter of this engagement, provided that such contractors comply with the restrictions on disclosure set forth in this sentence. Client, however, may create its own materials based on the content of such Services and Deliverables and use and disclose such Client-created materials for external purposes, provided that, Client does not in any way, expressly or by implication, attribute such materials to Deloitte Advisory or its subcontractors.

b) To the extent that, in connection with this engagement, either party (each, the "receiving party") comes into possession of any confidential information of the other (the "disclosing party"), it will not disclose such information to any third party without the disclosing party's consent, using at least the same degree of care as it employs in maintaining in confidence its own confidential information of a similar nature, but in no event less than a reasonable degree of care. The disclosing party hereby consents to the receiving party disclosing such information: (i) as expressly permitted in the Engagement Letter; (ii) to contractors providing administrative, infrastructure, and other support services to the receiving party and subcontractors providing services in connection with this engagement, in each case, whether located within or outside of the United States, provided that such contractors and subcontractors have agreed to be bound by confidentiality obligations similar to those in this Section 11(b); (iii) as may be required by law or regulation, or to respond to governmental inquiries, or in accordance with applicable professional standards or rules, or in connection with litigation or arbitration pertaining hereto; or (iv) to the extent such information (a) is or becomes publicly available other than as the result of a disclosure in breach hereof, (b) becomes available to the receiving party on a nonconfidential basis from a source that the receiving party believes is not prohibited from disclosing such information to the receiving party, (c) is already known by the receiving party without any obligation of confidentiality with respect thereto, or (d) is developed by the receiving party independently of any disclosures made to the receiving party hereunder. Nothing in this Section 11(b) shall alter Client's obligations under Section 11(a). Deloitte Advisory, however, may use and disclose any knowledge and ideas acquired in connection with the Services to the extent they are retained in the unaided memory of its personnel.

12. **Survival and Interpretation.** All provisions that are intended by their nature to survive performance of the Services shall survive such performance, or the expiration or termination of this engagement. For purposes of these terms and the Engagement Letter, "Deloitte Advisory" or "Advisor" shall mean Deloitte & Touche LLP. Each of the provisions of these terms shall apply to the fullest extent of the law, whether in contract, statute, tort (such as *negligence*), or otherwise, notwithstanding the failure of the essential purpose of any remedy. Any references herein to the term "including" shall be deemed to be followed by "without limitation."

13. **Assignment and Subcontracting.** Except as provided below, neither party may assign any of its rights or obligations (including interests or Claims) relating to this engagement or the Services, without the prior written consent of the other party. Client hereby consents to Deloitte Advisory subcontracting or assigning any portion of the Services to any affiliate or related entity, whether located within or outside of the United States. Services performed hereunder by Deloitte Advisory's subcontractors shall be invoiced as professional fees on the same basis as Services performed by Deloitte Advisory's personnel unless otherwise agreed.

14. **Waiver of Jury Trial.** THE PARTIES HEREBY IRREVOCABLY WAIVE, TO THE FULLEST EXTENT PERMITTED BY LAW, ALL RIGHTS TO TRIAL BY JURY IN ANY ACTION, PROCEEDING, OR COUNTERCLAIM RELATING TO THIS ENGAGEMENT.

14. **Dispute Resolution.** Any controversy or claim between the parties arising out of or relating to these terms, the Engagement Letter, or this engagement (a "Dispute") shall be resolved by mediation or binding arbitration as set forth below.

- a) **Mediation.** All Disputes shall first be submitted to nonbinding confidential mediation by written notice to the parties, and shall be treated as compromise and settlement negotiations under the standards set forth in the Federal Rules of Evidence and all applicable state counterparts, together with any applicable statutes protecting the confidentiality of mediations or settlement discussions. If the parties cannot agree on a mediator, the International Institute for Conflict Prevention and Resolution ("CPR"), at the written request of a party, shall designate a mediator.
- b) **Arbitration Procedures.** If a Dispute has not been resolved within 90 days after the effective date of the written notice beginning the mediation process (or such longer period, if the parties so agree in writing), the mediation shall terminate and the Dispute shall be settled by binding arbitration to be held in New York, New York. The arbitration shall be conducted in accordance with the CPR Rules for Non-Administered Arbitration that are in effect at the time of the commencement of the arbitration, except to the extent modified by this Section 14 (the "Rules"). The arbitration shall be conducted before a panel of three arbitrators. Each of Client and Deloitte Advisory shall designate one arbitrator in accordance with the "screened" appointment procedure provided in the Rules and the two party-designated arbitrators shall jointly select the third in accordance with the Rules. No arbitrator may serve on the panel unless he or she has agreed in writing to enforce the terms of the Engagement Letter (and its appendices) and to abide by the terms of this Section 14. Except with respect to the interpretation and enforcement of these arbitration procedures (which shall be governed by the Federal Arbitration Act), the arbitrators shall apply the governing law set forth in Section 18 in connection with the Dispute. The arbitrators shall have no power to award damages inconsistent with these terms or the Engagement Letter, including the limitation on liability and indemnification provisions contained herein. The arbitrators may render a summary disposition relative to all or some of the issues, provided that the responding party has had an adequate opportunity to respond to any such application for such disposition. Discovery shall be conducted in accordance with the Rules. All aspects of the arbitration shall be treated as confidential, as provided in the Rules. Before making any disclosure permitted by the Rules, a party shall give written notice to all other parties and afford such parties a reasonable opportunity to protect their interests. Further judgment on the arbitrators' award may be entered in any court having jurisdiction.

- c) **Costs.** Each party shall bear its own costs in both the mediation and the arbitration; however, the parties shall share the fees and expenses of both the mediators and the arbitrators equally.

15. **Non-exclusivity.** Deloitte Advisory may (a) provide any services to any person or entity, and (b) develop for itself, or for others, any materials or processes, including those that may be similar to those produced as a result of the Services, provided that Deloitte Advisory complies with its obligations of confidentiality set forth hereunder.

16. **Non-solicitation.** During the term of this engagement and for a period of one (1) year thereafter, each party agrees that its personnel (in their capacity as such) who had substantive contact with personnel of the other party in the course of this engagement shall not, without the other party's consent, directly or indirectly employ, solicit, engage, or retain the services of such personnel of the other party. In the event a party breaches this provision, the breaching party shall be liable to the aggrieved party for an amount equal to thirty percent (30%) of the annual base compensation of the relevant personnel in his or her new position. Although such payment shall be the aggrieved party's exclusive means of monetary recovery from the breaching party for breach of this provision, the aggrieved party shall be entitled to seek injunctive or other equitable relief. This provision shall not restrict the right of either party to solicit or recruit generally in the media.

17. **Entire Agreement, Amendment, and Notices.** These terms, and the Engagement Letter, including attachments, constitute the entire agreement between the parties with respect to this engagement; supersede all other oral and written representations, understandings, or agreements relating to this engagement; and may not be amended except by a written agreement signed by the parties. In the event of any conflict or ambiguity between these terms and the Engagement Letter, these terms shall control. All notices hereunder shall be (a) in writing; (b) delivered to the representatives of the parties at the addresses set forth in the Engagement Letter, unless changed by either party by notice to the other party; and (c) effective upon receipt.

18. **Governing Law, Jurisdiction and Venue, and Severability.** These terms, the Engagement Letter, including attachments, and all matters relating to this engagement shall be governed by, and construed in accordance with, the laws of the State of New York (without giving effect to the choice of law principles thereof). If any provision of these terms or the Engagement Letter is unenforceable, such provision shall not affect the other provisions, but such unenforceable provision shall be deemed modified to the extent necessary to render it enforceable, preserving to the fullest extent permissible the intent of the parties set forth herein.

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, January 28, 2016 10:43 PM  
**To:** Maynard, Sharon (DTMB)  
**Subject:** Re: Time for Flint Water Assignment...

Give me more OT during this. Is that an option?

Sent from my iPhone

On Jan 28, 2016, at 7:55 PM, Maynard, Sharon (DTMB) <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)> wrote:

Can we consider compensating him for the extra hours needed for flint? This should pass pretty much after this week right?

Sent from my iPad

Begin forwarded message:

**From:** "Hatch, David (DTMB)" <[HatchD@michigan.gov](mailto:HatchD@michigan.gov)>  
**Date:** January 28, 2016 at 4:08:25 PM EST  
**To:** "Pemble, William (DTMB)" <[PembleW@michigan.gov](mailto:PembleW@michigan.gov)>, "Maynard, Sharon (DTMB)" <[maynards1@michigan.gov](mailto:maynards1@michigan.gov)>  
**Subject:** Time for Flint Water Assignment...

Hi Bill and Sharon,

Bill – just was in a meeting with Jeff, Sharon, and Rebecca where Jeff assigned me additional work that needs to get done today and tomorrow.

Bill and Sharon – I am already beyond my approved overtime by 2 hours for this pay period. I have spent 15+ hours this week on the Flint assignment. I have regular work that is quickly falling behind (I am behind on Digital Signatures, MMCC Q&A which was due to vendors Monday, and need to read my Co-Location RFP's for next week); and get my Flint related assignment(s) done.

I am planning to work the hours to needed to get the work done, so none of these falls through the cracks.

Please let me know how my pay for this should be handled.

For now I will keep reporting and tracking my hours with Bill so he has a record of my work hours.

Dave

David Hatch  
DTMB – Procurement  
Buyer, IT Division

Constitution Hall – 1<sup>st</sup> Floor  
525 West Allegan  
Lansing, MI 48913  
Phone (517) 284-7044  
Fax (517) 335-0046  
[hatchd@michigan.gov](mailto:hatchd@michigan.gov)  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

<image001.gif>

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Friday, January 29, 2016 5:33 PM  
**To:** Irwin, Sherri (MSP)  
**Subject:** RE: City of Flint tracking

Thanks so much for calling! Have a great weekend.

Jeff

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**From:** Irwin, Sherri (MSP)  
**Sent:** Friday, January 29, 2016 5:01 PM  
**To:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; Burger, Penelope (MSP) <[BurgerP@michigan.gov](mailto:BurgerP@michigan.gov)>; Fenning, Caron (DTMB) <[fenningc@michigan.gov](mailto:fenningc@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: City of Flint tracking

I will contact Ms. Caron Fenning and have her add Mr. Brownlee to the meeting on Feb 2, 2016 from 11-12

Thank you

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**From:** Christensen, Chris (DTMB)  
**Sent:** Friday, January 29, 2016 4:37 PM  
**To:** Burger, Penelope (MSP) <[BurgerP@michigan.gov](mailto:BurgerP@michigan.gov)>; Irwin, Sherri (MSP) <[IrwinS@michigan.gov](mailto:IrwinS@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** FW: City of Flint tracking

Penny,

Will you please add Jeff Brownlee to the meeting, he is the Chief Procurement officer for the State of Michigan.

Chris Christensen  
Director of Infrastructure Protection  
Office: (517) 241-2188  
Cell: (517) 243-1647  
[Christensenc4@michigan.gov](mailto:Christensenc4@michigan.gov)



**HELP. CONNECT. SOLVE.**

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Friday, January 29, 2016 4:31 PM  
**To:** Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>; DeCamp, Greg (DTMB) <[DeCampG1@michigan.gov](mailto:DeCampG1@michigan.gov)>; Jeffery, Phillip (DTMB) <[JefferyP@michigan.gov](mailto:JefferyP@michigan.gov)>  
**Subject:** RE: City of Flint tracking



Chris,  
I need to be in this meeting. When and where, please?  
Thanks,  
Jeff

---

**From:** DeCamp, Greg (DTMB)  
**Sent:** Friday, January 29, 2016 2:54 PM  
**To:** Jeffery, Phillip (DTMB) <[Jefferyp@michigan.gov](mailto:Jefferyp@michigan.gov)>; Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>  
**Subject:** RE: City of Flint tracking

Just talked to Sherri Irwin at MSP and they are meeting with SBO on Tuesday to discuss. Lisa Shoemaker and Chris Harkins will be there along with MSP and other SBO staff. They are trying to get DHHS representatives there. I have a conflict so cant attend but sent her the spreadsheet Chris is keeping so she could get an idea of what DTMB has spent to date.

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**From:** Christensen, Chris (DTMB)  
**Sent:** Friday, January 29, 2016 12:49 PM  
**To:** Jeffery, Phillip (DTMB) <[Jefferyp@michigan.gov](mailto:Jefferyp@michigan.gov)>; DeCamp, Greg (DTMB) <[DeCampG1@michigan.gov](mailto:DeCampG1@michigan.gov)>  
**Subject:** Fwd: City of Flint tracking

Who's in on this?

Thanks Chris

Begin forwarded message:

**From:** "Burger, Penelope (MSP)" <[BurgerP@michigan.gov](mailto:BurgerP@michigan.gov)>  
**Date:** January 29, 2016 at 12:44:53 PM EST  
**To:** "Christensen, Chris (DTMB)" <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>  
**Cc:** "Kelenske, Chris (MSP)" <[KelenskeC@michigan.gov](mailto:KelenskeC@michigan.gov)>, "Katarsky, Anthony (MSP)" <[KatarskyA@michigan.gov](mailto:KatarskyA@michigan.gov)>  
**Subject:** City of Flint tracking

Captain Kelenske asked that I reach out to you today concerning the cost tracking for the City of Flint water emergency. We appreciate your concern with ensuring the State of Michigan has collectively documented and reported related costs.

I have discussed many of the concerns that have been brought to Captain with Ms. Sherri Irwin, Director of Departmental Services Division with MSP. She has organized a meeting for her and I to sit down with representatives of the State Budget Office and DTMB to make sure we are in alignment to reach the same goals. I am confident that all concerns will be met.

Thank you.

Penny Burger

Sent from my iPhone

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Saturday, January 30, 2016 3:53 PM  
**To:** Roberts, John (DTMB)  
**Subject:** RE: Flint/Emergency purchasing  
**Attachments:** DTMB Procurement - Memo to Agency Purchasing Management - Key Emergency ....docx

Sounds like it's still a bit of a mess. There is a meeting on Tuesday with some folks in your shop, MSP, and DTMB. I am going to attend it and do my best to put this to bed. I sent Capt. Kelenski a copy of a memo I plan to distribute after that meeting provided there are no surprises which render my memo incorrect. He agreed with all material aspects of it, sending me only minor edits.

Attached is the memo. Any feedback you have is welcomed.

I'm worried about contracting related to the situation in general, but I heard on Friday (I think it was via Brom) that Bankowski is now engaged and working closely with Rich. Let me know if you want to talk about that statement of work from the accounting firm. I had some concerns which I shared with Brom.

Enjoy the rest of your weekend! Thanks for reaching out.  
Thanks,  
Jeff

---

**From:** Roberts, John (DTMB)  
**Sent:** Saturday, January 30, 2016 3:40 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Flint/Emergency purchasing

Do you have everything you need now?

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 10:26 AM  
**To:** Roberts, John (DTMB); Stibitz, Brom (DTMB); Behen, David (DTMB); Duncan, Nancy (DTMB)  
**Cc:** Wellman, Jeff (DTMB); Minix, Connie (DTMB); Donnan, Chanda (DTMB)  
**Subject:** Flint/Emergency purchasing

Keeping this within DTMB for an initial discussion. I'd like to get 10 minutes with you all re: the emergency purchasing going on for Flint. The operating model currently in place is not working well according to my procurement leadership team (reps from all agencies) and my staff. I fear if we don't get ahead of this now, we may be causing ourselves some headaches down the road. More details when we talk.

If John and David agree to a call, Connie and Chanda, will you please coordinate? Thank you.

Jeff



STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

RICK SNYDER  
GOVERNOR

DAVID B. BEHEN  
DIRECTOR

January 29, 2016

**TO:** State of Michigan Procurement Leadership  
**FROM:** DTMB Procurement  
**SUBJECT:** Genesee County Water Emergency Response - Purchasing Guidance

Thank you to all who are working to support the State of Michigan's Genesee County water emergency response.

Given the complexity and variety of the needs of this emergency effort, the purchasing support required is complex as well. Purchasing protocols have some differences under this declared state of emergency, and meticulous tracking of expenditures is imperative.

The Michigan State Police (MSP) is the lead agency overseeing the situation and managing the State of Michigan Emergency Operations Center (SEOC). Flint related purchases must **first** be routed through the appropriate State Emergency Operations Center (SEOC) contact (see attached for an agency roster). This is required for all Flint related purchases without exception. The SEOC financial team is responsible for tracking all expenditures in connection with the emergency efforts.

***Each agency is responsible for its own purchasing transactions. This includes p-card transactions and purchase orders, the tracking of all such transactions, and reporting of those transactions to the appropriate SEOC representative. Failure to properly inform the SEOC financial team of any transaction may result in a forfeiture of any potential reimbursement anticipated by the agency.***

Agency purchasing managers are responsible to supply their agency's SEOC representative with a 24/7 phone number for agency purchasing staff support, and request that the SEOC representative involves them in every purchase. (Note: SEOC hours are 8 am to 8 pm, seven days a week.)

***Emergency Purchasing Procedure:***

Public Act 431 of 1984 provides an exception to competitive bidding during a state of emergency. However, responsible purchasing procedures are still the expectation for all procurement professionals (agency purchasing staff).

In addition to the notification and reporting expectations set forth above, transactions should be conducted and/or overseen by procurement professionals, with rare exception, in accordance with the following:

- Each agency makes their own determination when an emergency purchase order is required, and is then responsible for the supporting documentation
- Utilize existing State contracts where possible. Contact DTMB Procurement for help negotiating bulk rates or expedited shipments if needed, and for any concerns related to availability of funds on a contract

- Obtain three quotes whenever reasonably practicable
- Post bids online to the extent practicable
- Please escalate any questions to DTMB Procurement before executing a buy
- DTMB Procurement will assist any agency upon request to address supply chain issues (e.g. working with a national supplier to ensure a high volume supply of water filters are available)
- DTMB-Financial Services is not responsible for issuing emergency purchase orders on behalf of agencies with the exception of information technology related goods and services
- Maintain documentation supporting all transactions. Establish internal protocols to support this such as a single spreadsheet to track agency-wide transactions. Report your agency's expenses to the SEOC Finance team via your SEOC representative.

Questions, concerns, or comments should be directed to:

Primary Contact:

Rebecca Cook, Commodities Division Director

[Cookr6@michigan.gov](mailto:Cookr6@michigan.gov)

Cell: 517-930-4015

Secondary Contact:

Jeff Brownlee, Chief Procurement Officer

[brownleej@michigan.gov](mailto:brownleej@michigan.gov)

Cell: 517-930-3472

Sincerely,

Jeff Brownlee

Chief Procurement Officer

State of Michigan

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 11:01 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** RE: Vendor link

Looks good to me! Checking with Brom in a few minutes. How long will it take to move it to production once I confirm with Brom?

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**From:** Riehle, Jenni (DTMB)  
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Please let me know of any changes you have. Thanks!

Jenni

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## Flint Emergency Purchasing

Vendors who are interested in selling goods or services to the state to aid in the Flint crises may use the following form to notify state representatives of their solutions. All submissions will be reviewed but not all vendors will be contacted.

Vendors should also register their business on the state's bid posting website [www.Buy4Michigan.com](http://www.Buy4Michigan.com) to find current contracting opportunities with the state. Additional information on the state's contracting process, including training material, policies, and can be found on [www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect).

### Supplier's Submission Form

\* indicates a required field

Company \*

Location

Phone (main number)\*

Web site

Contact name \*

Title

Direct Phone \*

Contact email address \*

Re-entered email address \*

Name of commodities, services, or technology that you wish to supply to assist with the Flint water emergency\*

Description \*

URL for product/service info

Are you offering any free or in-kind products or services? (if applicable)

Comments/questions

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 01, 2016 10:25 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

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Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 10:24 AM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** Re: Vendor link

When you have a mock up, please send a link to me and Brom. He needs this today, please. Thanks, Jenni!

Jeff

Sent from my iPhone

On Feb 1, 2016, at 7:59 AM, Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)> wrote:

Yeah, I can make one of the boxes ask if they are offering free or in-kind services. It would seem like they would go to the donation button on the Help for Flint site for that, but I'll put it in there.

Jenni

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**From:** Brownlee, Jeff (DTMB)  
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**Subject:** Fwd: Vendor link

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Sent from my iPhone

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**Date:** January 31, 2016 at 8:13:46 PM EST  
**To:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Fwd: Vendor link

See the one requested change from the Gov's office. Please let me see the thing before we share it. Thanks.

Thanks.

Brom Stibitz

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**From:** "Sachs, Tori (GOV)" <[SachsT@michigan.gov](mailto:SachsT@michigan.gov)>  
**Date:** January 31, 2016 at 7:44:33 PM EST  
**To:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Subject:** RE: Vendor link

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**Sent:** Friday, January 29, 2016 5:41 PM  
**To:** Sachs, Tori (GOV)  
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Can you let me know if you have any specific changes you would like to see?

(PLEASE DO NOT SEND ANYONE TO THIS LINK NOW)

<http://michigan.gov/micontractconnect/0,4541,7-225-56585---,00.html>

Brom Stibitz  
Chief Deputy Director  
Michigan Department of Technology, Management and Budget  
[stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004  
<image001.gif>

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 4:49 PM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** RE: Vendor link

How much work to add that checkbox? Would that allow us to sort via list/database all vendors that offered free services?

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 1, 2016 4:45 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

Okay, I take back the 30 seconds. I just got an email from eMichigan saying that my admin cache button is going to be wonky while they try to improve the security on the website, so if we get an okay for the form it might take up to an hour to show to the public now. My apologies, I didn't see that one coming.

Thanks - Jenni

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 01, 2016 11:02 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

About 30 seconds.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
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Michigan Department of Technology, Management and Budget  
[stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004  
<image001.gif>

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 7:48 PM  
**To:** kschwerdtfeger@deloitte.com  
**Cc:** Bankowski, Jeffrey S. (DTMB)  
**Subject:** Flint Engagement Letter VII\_MI Edits 20160201  
**Attachments:** Flint Engagement Letter VII\_MI Edits 20160201.docx

Kathryn,

Please find attached a marked up document per our discussion this afternoon. Unfortunately, I do not have Rhoda's email address. Please forward as you deem appropriate to your team. Let's all connect tomorrow. I apologize for taking a couple of hours to get this to you.

Jeff Brownlee

January 18, 2016

Mr. ~~John Nick Roberts~~Khouri  
~~State Budget Director~~Treasurer  
State of Michigan  
Romney Building  
111 S. Capitol Avenue  
Lansing, MI 48933

Dear Mr. ~~Roberts~~Khouri,

This engagement letter is to confirm the engagement of Deloitte & Touche LLP ("Deloitte Advisory" or "we" or "our" or "us") to provide the State of Michigan and its agencies and subdivisions, to include the City of Flint (collectively, the "Organization" or "Client" or "you") crisis response and/or recovery services related to the water contamination crisis in the City of Flint Michigan that was signed as a Presidential Emergency Declaration on January 16, 2016 (the "event") described below (the "Services"). This letter is effective as of January 18, 2016.

We understand that the State of Michigan's objectives for this engagement is to have Deloitte support the response and recovery in the following ways:

- Become the trusted advisor and subject matter resource to the Client
- Serve as a liaison on behalf of the City with State, Federal, and other Stakeholders
- Help bring structure and organization to the crisis response and recovery efforts
- Provide other crisis response and recovery services to be defined by the Client as the crisis evolves

## **SCOPE, APPROACH, and DELIVERABLES**

We are prepared to provide consulting services and advice related to the event that will be based on discussions with you as the engagement progresses and as additional information is obtained during the course of the engagement. At this time we anticipate focusing on the following: deliverables outlined in Schedule A.

<sup>1</sup>As used in this engagement letter, "Deloitte Advisory" means Deloitte & Touche LLP, which provides audit and enterprise risk services; Deloitte Financial Advisory Services LLP, which provides forensic, dispute, and other consulting services; and its affiliate, Deloitte Transactions and Business Analytics LLP, which provides a wide range of advisory and analytics services. Deloitte Transactions and Business Analytics LLP is not a certified public accounting firm. These entities are separate subsidiaries of Deloitte LLP. Please see [www.deloitte.com/us/about](http://www.deloitte.com/us/about) for a detailed description of the legal structure of Deloitte LLP and its subsidiaries. Certain services may not be available to attest clients under the rules and regulations of public accounting.



- ~~• Supporting the Mayor in developing a new organization structure and decision matrix that covers governance and management activities of the City.~~
- Supporting the Mayor in assessing the current state of financial management reporting, understand the unique requirements given recent events, and provide recommendations on enhancing the City's overall financial management processes to provide stakeholders with the variety of information that will be necessary over time. Deliverables Schedule A.

We anticipate this initial assessment phase of the engagement to last no more than 30 days. At the conclusion of the initial assessment period, a more detailed scope of services will be defined and mutually agreed to by the parties in a formal amendment to this engagement letter.

The Services will be performed in accordance with the *Statement on Standards for Consulting Services* that is issued by the American Institute of Certified Public Accountants ("AICPA").

~~We will provide our observations, advice, and recommendations, which we anticipate will be delivered orally. Written deliverables may be produced in support of the agreed scope, but will be owned and managed by the Client. The determination of any specific written deliverables to be produced will be agreed to by both parties and documented as the engagement progresses.~~

## **ENGAGEMENT STAFFING**

Based on the information received to date, we have structured the following engagement team for the performance of the Services:

Mark Davidoff, Partner and Lead Client Services Partner for the State of Michigan, will oversee all services provided to the State regarding this event.

Rhoda Woo, Managing Director and Leader of Deloitte's National Crisis Management Solutions Practice, will serve as the crisis response advisor providing oversight over the day-to-day operations of the support team.

Kathie Schwerdtfeger, Partner and Leader of Deloitte's National Crisis Recovery Practice will serve as the crisis recovery advisor and will provide oversight over the day-to-day operations of the support team.

Linus Akanoh, Advisory Senior Manager, will serve as the lead senior manager directing the execution of day to day activities of Deloitte staff.

Additional assistance may also be provided by other professionals who will be identified during the course of this engagement. Furthermore, we will modify personnel, as needed, as additional information is received and will be mutually agreed upon with the Client.

## **FEES, TIMING, AND OTHER SERVICES**

We are prepared to begin work on a mutually agreed-upon date following your acceptance of the terms of this letter.

Our fees will be based on the actual time spent at hourly rates that relate to the levels of experience of the individuals assigned to the engagement.

We anticipate that the estimate of fees for the initial assessment phase will not exceed \$50,000 each week. Should we determine that fees may exceed the weekly estimate, we will provide the Client with prior written notification prior to billing. Fees will be invoiced upon completion of each deliverable in accordance with the table of deliverables in Schedule B, attached hereto and incorporated by reference. Any changes to the deliverables or fee schedule must be mutually approved in advance and in writing.

Fees for additional phases will be defined in subsequent amendments to this engagement letter.

Our rates are based upon our current understanding of the engagement requirements, our proposed approach, our estimate of the level of effort required, our roles and responsibilities, and any assumptions set forth herein. Fees will be billed biweekly and are payable upon receipt.

In addition to our fees, we will be reimbursed for all reasonable expenses incurred in performing the Services (including, but not limited to, our reasonable travel, meal, lodging, and mileage expenses).

These expenses shall be billed at our incurred cost and added to our bi-weekly invoices. Total reimbursable expenses shall not exceed 10% of the total engagement fees.

Our fees and expenses are not contingent upon the final resolution of the crisis event that is the subject of this engagement. Based on our experience, issues sometimes arise that require procedures beyond what was initially anticipated. If this should occur, we will discuss it with you prior to performing any additional work.

## **ACKNOWLEDGEMENTS AND AGREEMENTS**

In connection with this engagement, the Client acknowledges and agrees to the following:

- The Client will provide a primary point-of-contact (POC) for the duration of the engagement. The Client POC will help coordinate interviews and meetings, obtain regular status updates, provide quick turnaround on identification or validation of input, and to obtain enterprise risk management knowledge transfer throughout the engagement.
- Timely identification of, availability of, and cooperation from stakeholders and other Client resources required at the various steps of the engagement, particularly for interviews in Phase 1.
- Should access to Client individuals be limited, the timeline and costs will be revised and discussed with you. Fees for this engagement will be billed bi-weekly and payable in accordance with the General Business Terms attached to this Engagement Letter as Exhibit A.
- The engagement will be scheduled to begin on an agreed date. Any delays in project initiation or timely assistance by Client personnel will delay the respective delivery dates and may increase the total fees beyond the amount set forth herein.
- Substantial and meaningful involvement of Client personnel is critical to the success of this

engagement. The Client will be responsible for ensuring that the identified personnel actively participate in the planning and execution of this engagement.

- The Client will provide timely feedback, including feedback on each defined deliverable, within five business days.
- The Client is solely responsible for, among other things: a) the performance of its personnel and agents; b) the accuracy and completeness of all data and information provided to Advisor for purposes of providing the services described; c) making all management decisions, performing all management functions, and assuming all management responsibilities; d) designating a competent management member to oversee the services; e) evaluating the adequacy and results of the services; f) accepting responsibility for the results of the services; and g) establishing and maintaining internal controls, including monitoring ongoing activities.
- Due to the nature of the crisis event, the specific scope of work will likely require modification during the initial phase of the engagement and as additional information is obtained throughout the engagement. Key modifications will be documented in a formal amendment and will be mutually agreed up by the parties.
- Deloitte Advisory may retain copies of the deliverables and any information evidencing Deloitte Advisory's performance of Services and any Client confidential information contained in such retained materials shall remain subject to Deloitte Advisory's confidentiality obligations set forth in the attached General Business Terms.
- Substantial and meaningful involvement of the Client's management officials responsible for coordination and oversight of the crisis response and recovery efforts, *e.g.*: field personnel, subject matter specialists, senior management, key executives, board members] of the State is critical to the success of this engagement. The Client is responsible for ensuring that (1) the identified Client personnel actively participate in both the planning and execution of this engagement and (2) Client personnel will be available to meet with the Deloitte Advisory's team as needed.
- The Client is responsible for all management decisions and external communications with the media, stakeholders, and others. We may provide advice and recommendations regarding the content of such external communications, but the Client will make final decisions. The Client will not disclose Deloitte Advisory's role externally without explicit written permission from us.
- The Client agrees that it will advise us in a timely manner of any applicable legal requirements concerning the Services to be provided by us, including, without limitation, the identification of any reports to be provided by us; the formats of, and filing deadlines for, such reports; and the legal requirements, if any, concerning the retention of our notes, draft reports, or other work product.
- The Services will not constitute an engagement to provide audit, compilation, review, or attestation services as described in the pronouncements on professional standards issued by the AICPA, the Public Company Accounting Oversight Board, or other regulatory body and, therefore, we will not express an opinion or other form of assurance with respect to our services.

- We will not provide any legal advice regarding this engagement or any assurance regarding the outcome of any future audit or regulatory examination or other regulatory action. The Client will be responsible for all regulatory and legal issues with respect to these matters.
- ~~Deliverables provided under this engagement may be disclosed by the Client's independent accountants to the extent required solely in connection with their audit of the Client's financial statements.~~
- Deliverables provided under this engagement may be disclosed by the Client to the Flint City Council, State of Michigan legislature, and/or federal oversight authorities to include the Federal Emergency Management Agency and other federal agencies supporting the response and recovery efforts of the Client. This information is being provided to these entities for informational purposes and solely in the exercise of their statutory authority over the crisis response and recovery efforts of the Client.

\* \* \* \* \*

During the term of this engagement, the Client may request that we perform additional services that are not encompassed by this engagement letter. Deloitte Advisory may perform such additional services upon receipt of a separate, signed engagement letter with terms and conditions that are acceptable to Deloitte Advisory and the Client.

This engagement letter, together with the General Business Terms attached hereto [as Exhibit A], the Deliverables attached hereto [as Schedule A], and the Deliverable Payments attached hereto [as Schedule B] and made a part hereof, constitute the entire agreement between the Client and Deloitte Advisory with respect to this engagement, supersede all other oral and written representations, understandings, or agreements relating to this engagement, and may not be amended except by the mutual written agreement of the Client and Deloitte Advisory.

Please indicate your acceptance of this agreement by signing this engagement letter in the space provided below and returning this engagement letter to us. A duplicate of this engagement letter is provided for your records.

Very truly yours,

Deloitte & Touche LLP

By: \_\_\_\_\_  
Rhoda Woo, Partner

Accepted and agreed to by the State of Michigan on behalf of itself and its subsidiaries:

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **EXHIBIT A — GENERAL BUSINESS TERMS**

1. **Services.** The services provided by Deloitte Advisory (the “Services”) under the engagement letter to which these terms are attached (the “Engagement Letter”) may include advice and recommendations, but Deloitte Advisory will not make any decisions on behalf of Client in connection with the implementation of such advice and recommendations. For purposes of these terms and the Engagement Letter, “Client” shall mean the entity as defined in the Engagement Letter.
2. **Payment of Invoices.** Client will compensate Deloitte Advisory under the terms of the Engagement Letter for the Services performed and expenses incurred, through the term or effective date of termination of this engagement. Deloitte Advisory’s invoices are due upon receipt. If payment is not received within thirty (30) days of receipt of an invoice (a) such invoice shall accrue a late charge equal to the lesser of (i) 1½% per month or (ii) the highest rate allowable by law, in each case compounded monthly to the extent allowable by law, and (b) Deloitte Advisory may also suspend or terminate the Services. Client shall be responsible for any taxes imposed on the Services or on this engagement, other than taxes imposed by employment withholding for Deloitte Advisory’s personnel or on Deloitte Advisory’s income or property.
3. **Term.** Unless terminated sooner as set forth below, this engagement shall terminate upon the completion of the Services. Either party may terminate this engagement, with or without cause, by giving thirty (30) days’ prior written notice to the other party. In the event of a termination for cause, the breaching party shall have the right to cure the breach within the notice period. Deloitte Advisory may terminate this engagement upon written notice to Client if Deloitte Advisory determines that the performance of any part of the Services would be in conflict with law, or independence or professional rules.
4. **Deliverables.**
  - a) Deloitte Advisory has rights in, and may, in connection with the performance of the Services, use, create, modify, or acquire rights in, works of authorship, materials, information, and other intellectual property (collectively, the “Deloitte Advisory Technology”).
  - b) For each deliverable, individually, uUpon full payment to Deloitte Advisory hereunder, and subject to the terms and conditions contained herein, (i) the tangible items specified as deliverables or work product in the Engagement Letter (the “Deliverables”) shall become the property of Client, and (ii) Deloitte Advisory hereby grants Client a royalty-free, fully paid-up, worldwide, nonexclusive license to use the Deloitte Advisory Technology contained in the Deliverables in connection with the use of such Deliverables. Except for the foregoing license grant, Deloitte Advisory or its licensors retain all rights in and to all Deloitte Advisory Technology.
  - c) To the extent any Deloitte Advisory Technology provided to Client hereunder constitutes inventory within the meaning of section 471 of the Internal Revenue Code, such Deloitte Advisory Technology is licensed to Client by Deloitte Advisory as agent for Deloitte & Touche Products Company LLC on the terms and conditions contained herein. The rights granted in this Section 4 do

not apply to any Deloitte Advisory Technology that is subject to a separate license agreement between Client and any third party (including Deloitte Advisory's affiliates).

5. **Limitation on Warranties.** This is a services engagement. Deloitte Advisory warrants that it shall perform the Services in good faith and with due professional care. **DELOITTE ADVISORY DISCLAIMS ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

6. **Limitation on Damages and Indemnification.**

a) Deloitte Advisory, its subsidiaries and subcontractors, and their respective personnel shall not be liable to Client for any claims, liabilities, or expenses relating to this engagement ("Claims") for an aggregate amount in excess of the fees paid by Client to Deloitte Advisory pursuant to this engagement, except to the extent resulting from the recklessness, bad faith, or intentional misconduct of Deloitte Advisory or its subcontractors. In no event shall Deloitte Advisory, its subsidiaries or subcontractors, or their respective personnel be liable to Client for any loss of use, data, goodwill, revenues, or profits (whether or not deemed to constitute a direct Claim), or any consequential, special, indirect, incidental, punitive, or exemplary loss, damage, or expense relating to this engagement.

b) In circumstances where any limitation on damages or indemnification provision hereunder is unavailable, the aggregate liability of Deloitte Advisory, its subsidiaries and subcontractors, and their respective personnel for any Claim shall not exceed an amount that is proportional to the relative fault that the conduct of Deloitte Advisory and its subcontractors bears to all other conduct giving rise to such Claim.

7. **Client Responsibilities.** Client shall cooperate with Deloitte Advisory in the performance of the Services, including providing Deloitte Advisory with reasonable facilities and timely access to data, information, and personnel of Client. With respect to the data and information provided by Client to Deloitte Advisory or its subcontractors for the performance of the Services, Client shall have all rights required to provide such data and information, and shall do so only in accordance with applicable law and with any procedures agreed upon in writing. Client shall be solely responsible for, among other things (a) the performance of its personnel and agents; (b) the accuracy and completeness of all data and information provided to Deloitte Advisory for purposes of the performance of the Services; (c) making all management decisions, performing all management functions, and assuming all management responsibilities; (d) designating a competent management member to oversee the Services; (e) evaluating the adequacy and results of the Services; (f) accepting responsibility for the results of the Services; and (g) establishing and maintaining internal controls, including monitoring ongoing activities. Deloitte Advisory's performance is dependent upon the timely and effective satisfaction of Client's responsibilities hereunder and timely decisions and approvals of Client in connection with the Services. Deloitte Advisory shall be entitled to rely on all decisions and approvals of Client.

8. **Force Majeure.** Neither party shall be liable for any delays or nonperformance directly or indirectly resulting from circumstances or causes beyond its reasonable control, including fire, epidemic or other casualty, act of God, strike or labor dispute, war or other violence, or any law, order, or requirement of any governmental agency or authority.

9. **Limitation on Actions.** No action, regardless of form, relating to this engagement, may be brought by either party more than one year after the cause of action has accrued, except that an action for nonpayment may be brought by a party not later than one year following the due date of the last payment owing to the party bringing such action.

10. **Independent Contractor.** Each party hereto is an independent contractor and neither party is, nor shall be considered to be, nor shall purport to act as, the other's agent, partner, fiduciary, joint venturer, or representative.

11. **Confidentiality and Internal Use.**

a) All Services and Deliverables shall be solely for Client's benefit, and are not intended to be relied upon by any person or entity other than Client. Client shall not disclose the Services or Deliverables, or refer to the Services or Deliverables in any communication, to any person or entity except (i) as specifically set forth in the Engagement Letter, ~~or~~ (ii) to Client's contractors solely for the purpose of their providing services to Client relating to the subject matter of this engagement, provided that such contractors comply with the restrictions on disclosure set forth in this sentence, or (iii) as required under the State of Michigan's Freedom of Information statute, Act 442 of 1976 ("FOIA"). Client, however, may create its own materials based on the content of such Services and Deliverables and use and disclose such Client-created materials for external purposes, provided that, Client does not in any way, expressly or by implication, attribute such materials to Deloitte Advisory or its subcontractors.

b) Except as required by the FOIA, ~~to~~ to the extent that, in connection with this engagement, either party (each, the "receiving party") comes into possession of any confidential information of the other (the "disclosing party"), it will not disclose such information to any third party without the disclosing party's consent, using at least the same degree of care as it employs in maintaining in confidence its own confidential information of a similar nature, but in no event less than a reasonable degree of care. The disclosing party hereby consents to the receiving party disclosing such information: (i) as expressly permitted in the Engagement Letter; (ii) to contractors providing administrative, infrastructure, and other support services to the receiving party and subcontractors providing services in connection with this engagement, in each case, whether located within or outside of the United States, provided that such contractors and subcontractors have agreed to be bound by confidentiality obligations similar to those in this Section 11(b); (iii) as may be required by law or regulation, or to respond to governmental inquiries, or in accordance with applicable professional standards or rules, or in connection with litigation or arbitration pertaining hereto; or (iv) to the extent such information (a) is or becomes publicly available other than as the result of a disclosure in breach hereof, (b) becomes available to the receiving party on a nonconfidential basis from a source that the receiving party believes is not prohibited from disclosing such information to the receiving party, (c) is already known by the receiving party without any obligation of confidentiality with respect thereto, or (d) is developed by the receiving party independently of any disclosures made to the receiving party hereunder. Nothing in this Section 11(b) shall alter Client's obligations under Section 11(a). Deloitte Advisory, however, may use and disclose any knowledge and ideas acquired in connection with the Services to the extent they are retained in the unaided memory of its personnel

12. **Survival and Interpretation.** All provisions that are intended by their nature to survive performance of the Services shall survive such performance, or the expiration or termination of this engagement. For purposes of these terms and the Engagement Letter, "Deloitte Advisory" or "Advisor" shall mean Deloitte & Touche LLP. Each of the provisions of these terms shall apply to the fullest extent of the law, whether in contract, statute, tort (such as *negligence*), or otherwise, notwithstanding the failure of the essential purpose of any remedy. Any references herein to the term "including" shall be deemed to be followed by "without limitation."

13. **Assignment and Subcontracting.** Except as provided below, neither party may assign any of its rights or obligations (including interests or Claims) relating to this engagement or the Services, without the prior written consent of the other party. Client hereby consents to Deloitte Advisory subcontracting or assigning any portion of the Services to any affiliate or related entity, whether located within or outside of the United States. Services performed hereunder by Deloitte Advisory's subcontractors shall be invoiced as professional fees on the same basis as Services performed by Deloitte Advisory's personnel unless otherwise agreed.

14. **Waiver of Jury Trial.** THE PARTIES HEREBY IRREVOCABLY WAIVE, TO THE FULLEST EXTENT PERMITTED BY LAW, ALL RIGHTS TO TRIAL BY JURY IN ANY ACTION, PROCEEDING, OR COUNTERCLAIM RELATING TO THIS ENGAGEMENT.

14. **Dispute Resolution.** Any controversy or claim between the parties arising out of or relating to these terms, the Engagement Letter, or this engagement (a "Dispute") shall be resolved by mediation or binding arbitration as set forth below.

- a) **Mediation.** All Disputes shall first be submitted to nonbinding confidential mediation by written notice to the parties, and shall be treated as compromise and settlement negotiations under the standards set forth in the Federal Rules of Evidence and all applicable state counterparts, together with any applicable statutes protecting the confidentiality of mediations or settlement discussions. If the parties cannot agree on a mediator, the International Institute for Conflict Prevention and Resolution ("CPR"), at the written request of a party, shall designate a mediator.
- b) **Arbitration Procedures.** If a Dispute has not been resolved within 90 days after the effective date of the written notice beginning the mediation process (or such longer period, if the parties so agree in writing), the mediation shall terminate and the Dispute shall be settled by binding arbitration to be held in New York, New York. The arbitration shall be conducted in accordance with the CPR Rules for Non-Administered Arbitration that are in effect at the time of the commencement of the arbitration, except to the extent modified by this Section 14 (the "Rules"). The arbitration shall be conducted before a panel of three arbitrators. Each of Client and Deloitte Advisory shall designate one arbitrator in accordance with the "screened" appointment procedure provided in the Rules and the two party-designated arbitrators shall jointly select the third in accordance with the Rules. No arbitrator may serve on the panel unless he or she has agreed in writing to enforce the terms of the Engagement Letter (and its appendices) and to abide by the terms of this Section 14. Except with respect to the interpretation and enforcement of these arbitration procedures (which shall be governed by the Federal Arbitration Act), the arbitrators shall apply the governing law set forth in Section 18 in connection with the Dispute. The arbitrators shall have no power to award damages inconsistent with these terms or the Engagement Letter, including the limitation on liability and indemnification provisions contained



herein. The arbitrators may render a summary disposition relative to all or some of the issues, provided that the responding party has had an adequate opportunity to respond to any such application for such disposition. Discovery shall be conducted in accordance with the Rules. All aspects of the arbitration shall be treated as confidential, as provided in the Rules. Before making any disclosure permitted by the Rules, a party shall give written notice to all other parties and afford such parties a reasonable opportunity to protect their interests. Further, judgment on the arbitrators' award may be entered in any court having jurisdiction.

- c) **Costs.** Each party shall bear its own costs in both the mediation and the arbitration; however, the parties shall share the fees and expenses of both the mediators and the arbitrators equally.

15. **Non-exclusivity.** Deloitte Advisory may (a) provide any services to any person or entity, and (b) develop for itself, or for others, any materials or processes, including those that may be similar to those produced as a result of the Services, provided that Deloitte Advisory complies with its obligations of confidentiality set forth hereunder.

16. **Non-solicitation.** During the term of this engagement and for a period of one (1) year thereafter, each party agrees that its personnel (in their capacity as such) who had substantive contact with personnel of the other party in the course of this engagement shall not, without the other party's consent, directly or indirectly employ, solicit, engage, or retain the services of such personnel of the other party. In the event a party breaches this provision, the breaching party shall be liable to the aggrieved party for an amount equal to thirty percent (30%) of the annual base compensation of the relevant personnel in his or her new position. Although such payment shall be the aggrieved party's exclusive means of monetary recovery from the breaching party for breach of this provision, the aggrieved party shall be entitled to seek injunctive or other equitable relief. This provision shall not restrict the right of either party to solicit or recruit generally in the media.

17. **Entire Agreement, Amendment, and Notices.** These terms, and the Engagement Letter, including attachments, constitute the entire agreement between the parties with respect to this engagement; supersede all other oral and written representations, understandings, or agreements relating to this engagement; and may not be amended except by a written agreement signed by the parties. In the event of any conflict or ambiguity between these terms and the Engagement Letter, these terms shall control. All notices hereunder shall be (a) in writing; (b) delivered to the representatives of the parties at the addresses set forth in the Engagement Letter, unless changed by either party by notice to the other party; and (c) effective upon receipt.

18. **Governing Law, Jurisdiction and Venue, and Severability.** These terms, the Engagement Letter, including attachments, and all matters relating to this engagement shall be governed by, and construed in accordance with, the laws of the State of ~~New York~~Michigan (without giving effect to the choice of law principles thereof). If any provision of these terms or the Engagement Letter is unenforceable, such provision shall not affect the other provisions, but such unenforceable provision shall be deemed modified to the extent necessary to render it enforceable, preserving to the fullest extent permissible the intent of the parties set forth herein.

**Deliverables – Schedule A**

<u>DELIVERABLE</u>	<u>ACCEPTANCE CRITERIA</u>	<u>METHOD OF DELIVERY</u>	<u>POTENTIAL MITIGATION</u>
<b><u>WEEK1: PROJECT PLAN</u></b> Confirm deliverables, activities, and overall project management schedules. Begin construct of relevant cash flow modeling for the City of Flint and ongoing use by the State of Michigan Treasury, include within the financial model applicable City Services regarding water and sewer.	<b><u>Timeliness</u></b> - Project Plan completed within 5 business days of award  <b><u>Report</u></b> - Weekly status report #1 issued which includes status update on cash flow project  <b><u>Quality</u></b> - Project Plan validated and agreed to by client and project team	Electronic & Hardcopy	<u>Draft Review</u>
<b><u>WEEK 2: AS-IS DOCUMENTATION FOR FINANCIAL MANAGEMENT REPORTING</u></b> Develop baseline understanding of current data, process, change-readiness, and need to inform the development of the variety of information that will be necessary given the recent events. Continue relevant cash flow modeling and assess processes for City tracking of State and Federal funds. Detail key themes and findings and recommendations.	<b><u>Timeliness</u></b> - As-Is Documentation Review completed within 10 business days of award  <b><u>Report</u></b> - Weekly Status Report #2 issued  <b><u>Quality</u></b> - Key themes, findings, and recommendations are validated and agreed to by client and project team	Electronic & Hardcopy	<u>Draft Review</u>
<b><u>WEEK 3: HIGH-LEVEL ASSESSMENT OF ORGANIZATION STRUCTURE AND DECISION MAXTRIX FOR GOVERNANCE</u></b>  Identify current capabilities and challenges and gain a deeper understanding of how the City currently measures operating and financial performance and performs governance. Provide key themes and recommendations on a new organization structure and decision matrix	<b><u>Timeliness</u></b> - High Level Assessment of Organizational Structure completed within 15 business days of award  <b><u>Report</u></b> - Weekly Status Report #3 Issued  <b><u>Quality</u></b> - Findings include current maturity of organizational structure and governance model. Provide recommendations and address opportunities from improvement	Electronic & Hardcopy	<u>Draft Review</u>
<b><u>WEEK 4: FINAL ASSESSMENT FRAMEWORK AND IMPLEMENTATION ROADMAP</u></b> Provide final assessment matrix for evaluating organizational structure and financial management reporting. Provide summary of findings, recommend improvements, and timeline for application of roadmap beyond current phase	<b><u>Timeliness</u></b> - Assessment Framework completed within 30 business days of award  <b><u>Report</u></b> - Weekly Status Report #4 Issued as well as final assessment framework and roadmap  <b><u>Quality</u></b> - Assessment Framework validated and agreed to by client and project team	Electronic & Hardcopy	<u>Draft Review</u>
<b><u>WEEK 4: LEADING PRACTICES</u></b> Summarize leading practices regarding the crisis management lifecycle. Assess existing opportunities including response to recovery.	<b><u>Timeliness</u></b> - Provide leading practices and gap assessment against existing current state within 30 business days of award  <b><u>Quality</u></b> - Validated and agreed to by client and project team	Electronic & Hardcopy	<u>Draft Review</u>

**Deliverable Payments – Schedule B**

<u>DELIVERABLE</u>	<u>DELIVERABLE NUMBER</u>	<u>PAYMENT ID</u>	<u>PERCENT OF TOTAL MILESTONE PAYMENTS</u>	<u>PAYMENT AMOUNT</u>
<u>PROJECT PLAN / WEEK 1 REPORT</u>	<u>D01</u>	<u>PMT1</u>	<u>25%</u>	<u>\$ 50,000.00</u>
<u>AS-IS DOCUMENTATION FOR FINANCIAL MANAGEMENT REPORTING / WEEK 2 REPORT</u>	<u>D02</u>	<u>PMT2</u>	<u>25%</u>	<u>\$ 50,000.00</u>
<u>HIGH-LEVEL ASSESSMENT OF ORGANIZATIONAL STRUCTURE AND DECISION MAXTRIX AND WEEK 3 REPORT</u>	<u>D03</u>	<u>PMT3</u>	<u>25%</u>	<u>\$ 50,000.00</u>
<u>FINAL ASSESSMENT FRAMEWORK AND IMPLEMENTATION ROADMAP AND WEEK 4 REPORT</u>	<u>D04</u>	<u>PMT4</u>	<u>20%</u>	<u>\$ 40,000.00</u>
<u>LEADING PRACTICES BENCHMARKING</u>	<u>D05</u>	<u>PMT5</u>	<u>5%</u>	<u>\$ 10,000.00</u>
<u>TOTAL</u>				<u>\$ 200,000.00</u>

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 11:28 PM  
**To:** Roberts, John (DTMB)  
**Subject:** Re: Flint/Emergency purchasing

Call my cell anytime after noon. Thanks, John.

Sent from my iPhone

On Feb 1, 2016, at 11:25 PM, Roberts, John (DTMB) <[RobertsJ9@michigan.gov](mailto:RobertsJ9@michigan.gov)> wrote:

Do you have time to chat tomorrow afternoon?

John Roberts

On Jan 30, 2016, at 3:52 PM, Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)> wrote:

Sounds like it's still a bit of a mess. There is a meeting on Tuesday with some folks in your shop, MSP, and DTMB. I am going to attend it and do my best to put this to bed. I sent Capt. Kelenski a copy of a memo I plan to distribute after that meeting provided there are no surprises which render my memo incorrect. He agreed with all material aspects of it, sending me only minor edits.

Attached is the memo. Any feedback you have is welcomed.

I'm worried about contracting related to the situation in general, but I heard on Friday (I think it was via Brom) that Bankowski is now engaged and working closely with Rich. Let me know if you want to talk about that statement of work from the accounting firm. I had some concerns which I shared with Brom.

Enjoy the rest of your weekend! Thanks for reaching out.  
Thanks,  
Jeff

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**From:** Roberts, John (DTMB)  
**Sent:** Saturday, January 30, 2016 3:40 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Flint/Emergency purchasing

Do you have everything you need now?

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, January 21, 2016 10:26 AM  
**To:** Roberts, John (DTMB); Stibitz, Brom (DTMB); Behen, David (DTMB); Duncan, Nancy (DTMB)  
**Cc:** Wellman, Jeff (DTMB); Minix, Connie (DTMB); Donnan, Chanda (DTMB)  
**Subject:** Flint/Emergency purchasing

Keeping this within DTMB for an initial discussion. I'd like to get 10 minutes with you all re: the emergency purchasing going on for Flint. The operating model currently in place is not working well according to my procurement leadership team (reps from all agencies) and my staff. I fear if we don't get ahead of this now, we may be causing ourselves some headaches down the road. More details when we talk.

If John and David agree to a call, Connie and Chanda, will you please coordinate? Thank you.

Jeff

<DTMB Procurement - Memo to Agency Purchasing Management - Key  
Emergency ....docx>

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 02, 2016 8:26 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Re: Vendor link

Go live with it as is. Let me know when it's up, Pls. Then send me a link. Please cc Brom.

Sent from my iPhone

On Feb 2, 2016, at 8:17 AM, Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)> wrote:

I am unsure how to add a "check box" but you will see in the picture of the form that I have a field that says "Are you offering any free or in-kind products or services. (If Applicable)" They can fill that out if they do. Is that not sufficient? I can connect with eMichigan to see if they can create a check box instead of an open field like we currently have.

The submissions to these forms are not sent into a database. They come as individual emails (checkbox or not). I could put them into a database as they come in so they could be sorted based on fields as you are suggesting. I also could put it on our intranet or a team room where other people could access it. Let me know if that is something you want to do.

Jenni

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 4:49 PM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** RE: Vendor link

How much work to add that checkbox? Would that allow us to sort via list/database all vendors that offered free services?

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**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 1, 2016 4:45 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

Okay, I take back the 30 seconds. I just got an email from eMichigan saying that my admin cache button is going to be wonky while they try to improve the security on the website, so if we get an okay for the form it might take up to an hour to show to the public now. My apologies, I didn't see that one coming.

Thanks - Jenni

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**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 01, 2016 11:02 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

About 30 seconds.

Jenni

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 11:01 AM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** RE: Vendor link

Looks good to me! Checking with Brom in a few minutes. How long will it take to move it to production once I confirm with Brom?

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**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 1, 2016 10:54 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

Hi Jeff,

I made a new tab specifically for this instead of redoing the vendor gateway. I am unable to send you a link because it is not a live page yet and you do not have access to the back end of the system. I have the below screen shot however. We can provide them this direct link or vendors can access this page by clicking on the left hand tab off of the Contract Connect website. These submissions will be sent to our general email box [dtmb-micontractconnect@michigan.gov](mailto:dtmb-micontractconnect@michigan.gov).

Please let me know of any changes you have. Thanks!

Jenni

<image001.png><image003.png>

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**From:** Riehle, Jenni (DTMB)  
**Sent:** Monday, February 01, 2016 10:25 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Vendor link

Sure thing. Our network has been down all morning but I think they have it back up. I will work on it now.

Jenni

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Monday, February 01, 2016 10:24 AM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** Re: Vendor link

When you have a mock up, please send a link to me and Brom. He needs this today, please. Thanks, Jenni!

Jeff

Sent from my iPhone

On Feb 1, 2016, at 7:59 AM, Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)> wrote:

Yeah, I can make one of the boxes ask if they are offering free or in-kind services. It would seem like they would go to the donation button on the Help for Flint site for that, but I'll put it in there.

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Sunday, January 31, 2016 8:55 PM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** Fwd: Vendor link

FYI. Can we do this?

Sent from my iPhone

Begin forwarded message:

**From:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Date:** January 31, 2016 at 8:13:46 PM EST  
**To:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Fwd: Vendor link

See the one requested change from the Gov's office. Please let me see the thing before we share it. Thanks.

Thanks.

Brom Stibitz

Begin forwarded message:

**From:** "Sachs, Tori (GOV)" <[SachsT@michigan.gov](mailto:SachsT@michigan.gov)>  
**Date:** January 31, 2016 at 7:44:33 PM EST  
**To:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Subject:** RE: Vendor link

Looks good. I think we would like to link to it from the flint water site(s). The only addition I would like to see is somewhere that people could check a box offering "free" or "in kind" services.

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**From:** Stibitz, Brom (DTMB)  
**Sent:** Friday, January 29, 2016 5:41 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Vendor link

Tori – our plan would be to modify this form for your needs. We could put this up on whichever site



you prefer. Or we could give you a link for use on the Flint site.

Can you let me know if you have any specific changes you would like to see?

(PLEASE DO NOT SEND ANYONE TO THIS LINK NOW)

<http://michigan.gov/micontractconnect/0,4541,7-225-56585---00.html>

Brom Stibitz  
Chief Deputy Director  
Michigan Department of Technology, Management and Budget  
[stibitzb@michigan.gov](mailto:stibitzb@michigan.gov)  
517-373-1004  
<image001.gif>

## Appointment

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**From:** Brownlee, Jeff (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bae5bd3c6f244006a9a672e3df1f299c-Brownlee Jeff]  
**Sent:** 2/2/2016 9:54:52 AM  
**To:** Minix, Connie (DTMB) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5959debba9514353bf423ae78d6bb2a6-minixc]  
**Subject:** Accepted: 2:20 Phone Call - John Roberts / Jeff Brownlee re: Flint/Emergency Purchasing  
**Location:** Jeff calling John @ [REDACTED]  
**Start:** 2/2/2016 2:20:00 PM  
**End:** 2/2/2016 2:30:00 PM  
**Show Time As:** Busy

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 02, 2016 10:19 AM  
**To:** Maynard, Sharon (DTMB); Cook, Rebecca (DTMB)  
**Subject:** RE: Flint Assistance Offers and SEOC

I have a meeting at 11:00 today. If there are no surprises, it will go out today. MSP and DTMB leadership have already signed off.

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**From:** Maynard, Sharon (DTMB)  
**Sent:** Tuesday, February 2, 2016 10:18 AM  
**To:** Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Re: Flint Assistance Offers and SEOC

Jeff has the memo that Rebecca drafted released? If not what is the timing of that release? Thx

Sent from my iPad

On Feb 2, 2016, at 9:59 AM, Cook, Rebecca (DTMB) <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)> wrote:

Should this be shared at today's PLT and emailed to PLT/Purchasing Managers?

Begin forwarded message:

**From:** "Fortino, Diane (DTMB)" <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>  
**Date:** February 2, 2016 at 9:56:50 AM EST  
**To:** "Cook, Rebecca (DTMB)" <[CookR6@michigan.gov](mailto:CookR6@michigan.gov)>  
**Subject:** FW: Flint Assistance Offers and SEOC

FYI

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**From:** Donnan, Chanda (DTMB)  
**Sent:** Monday, February 01, 2016 10:13 PM  
**To:** Behen, David (DTMB) <[Behend@michigan.gov](mailto:Behend@michigan.gov)>; Buhs, Caleb (DTMB) <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>; Donnan, Chanda (DTMB) <[DonnanC@michigan.gov](mailto:DonnanC@michigan.gov)>; Davenport, Rodney (DTMB) <[DavenportR1@michigan.gov](mailto:DavenportR1@michigan.gov)>; Gelisse, Ashley (DTMB) <[GelisseA@michigan.gov](mailto:GelisseA@michigan.gov)>; Ingersoll, Jean (DHHS) <[IngersollJ@michigan.gov](mailto:IngersollJ@michigan.gov)>; Jeffery, Phillip (DTMB) <[JefferyP@michigan.gov](mailto:JefferyP@michigan.gov)>; King, Susan (MCSC) <[KingS5@michigan.gov](mailto:KingS5@michigan.gov)>; Kopacsi, Christian (DTMB) <[KopacsiC@michigan.gov](mailto:KopacsiC@michigan.gov)>; Manning, Kelly (DTMB) <[ManningK4@michigan.gov](mailto:ManningK4@michigan.gov)>; McFarlane, James (DTMB) <[mcfarlanej@michigan.gov](mailto:mcfarlanej@michigan.gov)>; Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>; Sweeney, Matthew (DTMB) <[SweeneyM1@michigan.gov](mailto:SweeneyM1@michigan.gov)>; Swanson, Eric (DTMB) <[swansone@michigan.gov](mailto:swansone@michigan.gov)>; Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>  
**Cc:** Nixon, Ruth (DTMB) <[NixonR@michigan.gov](mailto:NixonR@michigan.gov)>; Trakul, Pamela (DTMB) <[TrakulP@michigan.gov](mailto:TrakulP@michigan.gov)>; Allen, Charlotte (DTMB) <[AllenC1@michigan.gov](mailto:AllenC1@michigan.gov)>; Griswold, Kim (DTMB) <[GRISWOLDK@michigan.gov](mailto:GRISWOLDK@michigan.gov)>; Ragsdale, Aimee (DTMB)

<[RagsdaleA@michigan.gov](mailto:RagsdaleA@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>;

Christensen, Chris (DTMB) <[christensenc4@michigan.gov](mailto:christensenc4@michigan.gov)>

**Subject:** Flint Assistance Offers and SEOC

Per our discussion on Monday at the EMT meeting, Chris Christiansen has provided information on where to refer vendors looking to assist Flint and contact information for DTMB-SEOC. Please see below for the details.

- If you are contacted by a vendor that would like to provide donation for the Flint water problem, please direct them to [Flintdonations@michigan.gov](mailto:Flintdonations@michigan.gov)
- If you have any additional questions relating to the Flint issue please direct them to [DTMBECC@michigan.gov](mailto:DTMBECC@michigan.gov)

Thank you,

Chanda

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 02, 2016 11:19 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** RE: Flint Emergency Purchasing

Definitely track in a spreadsheet. We'll figure out where we go from there.  
Thank you!  
Jeff

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Tuesday, February 2, 2016 11:17 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Flint Emergency Purchasing

Jeff,

Do you want me to keep the responses in an Excel sheet? Also, should I send a standard email out when I receive submissions. If so, is there anything particular you would like it to say other than the standard contracting info?

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 02, 2016 11:15 AM  
**To:** Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>; Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Subject:** RE: Flint Emergency Purchasing

Brom, we could except this form just generates an email. It doesn't populate a database. So, the sorting function that you mentioned wouldn't add any value.

---

**From:** Stibitz, Brom (DTMB)  
**Sent:** Tuesday, February 2, 2016 11:11 AM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Flint Emergency Purchasing

Thanks Jenni. Was there a reason we couldn't put a check box for free services?

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Tuesday, February 02, 2016 11:08 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Subject:** Flint Emergency Purchasing

Jeff,

We are now live with the Flint Emergency Purchasing form on the website. It can be accessed here:  
<http://michigan.gov/micontractconnect/0,4541,7-225-75359---,00.html>

I apologize about the delay. Let me know if you have any questions.

Thanks,

Jenni Riehle

**Communications and Outreach Coordinator**

*State Of Michigan : DTMB – Procurement*

*Constitution Hall, 1<sup>st</sup> Floor, NE*

*525 West Allegan, Lansing, Michigan 48909*

[Riehlej2@michigan.gov](mailto:Riehlej2@michigan.gov) : 517-284-7023

[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)



**HELP. CONNECT. SOLVE.**



**Procurement Leadership Team  
Agenda  
January 20, 2016  
1:00 – 2:30  
Katherine Cushman Conference Room**

**Flint**

- Maintain a log of all activity related to the city of Flint and the emergency
- SEOC is coordinating
- FEMA – will they be quarterbacking? Regardless, the State must stay engaged

1. **Contract Fundamentals Class** 1:00 – 1:03  
- January 27, 2016 1-2:30 Michigan Historical Auditorium

Genevieve Hayes

1. FOIA Fundamentals – February 3 9-11:30, call in option, registration not necessary, only required if you did not attend last year
2. New Employee Orientation – if you have any new employees who you want to attend contact Genevieve. This has not been scheduled yet.
3. SOW 101 – handful on wait list – let Genevieve know if interested.
4. Standard Contract Terms – last class held in late 2014 – conducted by AG. Tentative date is 3/21, only required if you did not attend last year
5. Insurance Training – April 22 – 9:00 Con Con, only required if you did not attend last year

2. **PLT Meeting Membership (Jeff B.)** 1:03 – 1:15  
Considering allowing the procurement executive to change who is in the biweekly meetings. If your duties expand beyond “procurement” you may want to consider sending your procurement chief. Attendance is also open to you and your procurement chief. Please contact Jeff B if you would like to send someone.

Plan is to begin quarterly meetings with the procurement executives.

3. **Policy (Heather)** 1:15 – 2:00
- a. Chapter 10 – modified version posted 1/13/2016
  - b. Chapter 11 – final posted 1/13/2016
  - c. Chapter 12 – Feedback was due 1/19 – Policy Review Team 1/22
    - Any input at this time?
    - Clarification requested and provided on administrative and substantive changes related to increase in contract value
  - d. Chapter 5
    - i. User Guide – finalized based on feedback (will provide with meeting notes-modifications to be made and sent out ASAP)
    - ii. Request for Quote – solicitation method – phone quotes instead of written because of remote locations

Phone quotes are not the most transparent. Chapter 5 as written will be effective February 1, 2016. Must make reasonable effort to obtain at least three written quotes for \$2,500.01 - \$10,000 purchases. Buy4Michigan is always an option.

- iii. **Buy4Michigan exemption – Chapter 5 - “Any deviation from the requirements identified in this Chapter must be approved by the Chief Procurement Officer.”** Chapter 5 updated and copy provided of language that is modified to address requests for CPO approval on posting requirements. Advised Chapter 5 would be updated.

Team member has recommendations for changes to Chapter 5. Communicated collection of recommended changes, and advised that updates would be made in the future.

#### 4. Walk Ins

2:00 – 2:10

Sharon

- meetings with agencies scheduled throughout fiscal year
- surveys will be sent out soon requesting 1. contract options, 2. Transition time, and 3. look at Chapter 5 and see if ITN should be used, or if the exception for extending a contract based on useful life can be used
- Process Team – a report will be provided to the PLT soon. Provided an example of some work that is being done such as Forms Team recommended out of 53 forms, 24 of them are to be eliminated or consolidated
- Ad Board – combine F/C and Ad Board agenda dates, and increase threshold
- Discussed invitation to negotiate solicitation method and that the result may be a direct solicitation

ChangePoint

- iTRAC replacement with ChangePoint – agency expressed concern with this change. It was communicated that it is understood that iTRAC is the primary way to communicate internally at agencies, and with that said Central Procurement is also looking at new technology. Communicated that every state employee would be able to link from iTRAC to SharePoint and that the information is more substantial than could be.
- Confirmed that this solution would be for all RFPs and not for all iTRACS. For change notices the office would have a report to include status/comments and planned finish dates.
- Currently business analysts assign the iTRAC request to buyers and then develop a schedule based on current SLAs. The buyers will then finalize the agreed to schedule with the agency.
- If a schedule is not met the agency and buyer will get back together to reset the schedule and a formal change will be provided to increase transparency
- The system allows you to sort within your agency
- Expected to be implemented by April/May 2016 – possibly beforehand.

? How is the staffing going – what did you fill with the 19?

- Ran through general hires, and open vacancies

What is the role of the Business Analyst?

- Assisting division directors and buyers
- Will be critical to ChangePoint – reviewing status of projects and reporting to division directors
- Running reports/ assigning work
- Assist with processing change notices if demand is high/tight schedules
- Research
- Etc. continually developing

Natalie

- Moving depot to the GSB Warehouse in April. April 1 – 10 there may be impact on delivery and depot buys
- Anticipate that shipping will stop before April 1



FYI MMCC out for bid and expect award in summer–

- VMS – change to how vendor sent to Ad Board and informational meeting scheduled for 2/11/16 in State library. Notice will be sent.



**Procurement Leadership Team  
Agenda  
February 3, 2016  
1:00 – 2:30  
Katherine Cushman Conference Room**

- |                                                                                              |             |
|----------------------------------------------------------------------------------------------|-------------|
| 1. SIGMA Update (Shelley)                                                                    | 1:00 – 1:15 |
| 2. Protest                                                                                   | 1:15 – 1:20 |
| 3. Procurement – Flint (Jeff)                                                                | 1:20 – 1:25 |
| 4. iTRAC Comments (Jeff)                                                                     | 1:25 – 1:30 |
| 5. Phase II Kickoff (Jeff)                                                                   | 1:30 – 1:35 |
| 6. Policy (Heather)                                                                          | 1:35 – 2:05 |
| a. Chapter 12 – Feedback was due 1/19 – Policy Review Team 1/22<br>- Any input at this time? |             |
| b. Chapter 5<br>- User Guide                                                                 |             |
| 7. Operational Updates (Sharon)                                                              | 2:05 – 2:15 |
| 8. Walk Ins                                                                                  | 2:15 – 2:30 |

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 02, 2016 2:05 PM  
**To:** Fortino, Diane (DTMB)  
**Subject:** Fwd: DTMB Procurement - Memo to Agency Purchasing Management - Key Emergency Final  
**Attachments:** DTMB Procurement - Memo to Agency Purchasing Management - Key Emergency Final.docx; ATT00001.htm

Sent from my iPhone

Begin forwarded message:

**From:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Date:** February 2, 2016 at 11:55:37 AM EST  
**To:** "Buhs, Caleb (DTMB)" <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>  
**Cc:** "Harkins, Chris (DTMB)" <[HarkinsC1@michigan.gov](mailto:HarkinsC1@michigan.gov)>, "Bankowski, Jeffrey S. (DTMB)" <[Bankowskij@michigan.gov](mailto:Bankowskij@michigan.gov)>, "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Subject:** DTMB Procurement - Memo to Agency Purchasing Management - Key Emergency Final

Caleb,

Would you please help me distribute this to the enterprise? I need this to go to the top of every agency. Separately, I will send this to the procurement leadership team (all agencies). Please let me know your thoughts or if you have any concerns.

Thanks,  
Jeff



STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

RICK SNYDER  
GOVERNOR

DAVID B. BEHEN  
DIRECTOR

January 29, 2016

**TO:** State of Michigan Procurement Leadership  
**FROM:** DTMB Procurement  
**SUBJECT:** Genesee County Water Emergency Response - Purchasing Guidance

Thank you to all who are working to support the State of Michigan's Genesee County, City of Flint water emergency response.

Given the complexity and variety of the needs of this emergency effort, the purchasing support required is complex as well. Purchasing protocols have some differences under this declared state of emergency, and meticulous tracking of expenditures is imperative.

The Michigan State Police (MSP) is the lead agency overseeing the situation and managing the State Emergency Operations Center (SEOC). Flint related purchases must **first** be routed through the appropriate SEOC contact (see attached for an agency roster) to include the SEOC State Director. This is required for all Flint- related purchases without exception. The SEOC financial team is responsible for tracking all expenditures in connection with the emergency efforts.

***Each agency is responsible for its own purchasing transactions. This includes p-card transactions and purchase orders, the tracking of all such transactions, and reporting of those transactions to the appropriate SEOC representative. Failure to properly inform the SEOC financial team of any transaction may result in a forfeiture of any potential reimbursement anticipated by the agency.***

Agency purchasing managers are responsible to supply their agency's SEOC representative with a 24/7 phone number for agency purchasing staff support and request that the SEOC representative involves them in every purchase. (Note: SEOC hours are 8 am to 8 pm, seven days a week at this time.)

***Emergency Purchasing Procedure:***

Public Act 431 of 1984 provides an exception to competitive bidding during a state of emergency. However, responsible purchasing procedures are still the expectation for all procurement professionals (agency purchasing staff).

In addition to the notification and reporting expectations set forth above, transactions should be conducted and/or overseen by procurement professionals, with rare exception, in accordance with the following:

- Each agency makes their own determination when an emergency purchase order is required, and is then responsible for the supporting documentation
- Utilize existing State contracts where possible. Contact DTMB Procurement for help negotiating bulk rates or expedited shipments if needed, and for any concerns related to availability of funds on a contract

- Obtain three quotes whenever reasonably practicable
- Post bids online to the extent practicable
- Please escalate any questions to DTMB Procurement before executing a buy
- DTMB Procurement will assist any agency upon request to address supply chain issues (e.g. working with a national supplier to ensure a high volume supply of water filters are available)
- DTMB-Financial Services is not responsible for issuing emergency purchase orders on behalf of agencies with the exception of information technology related goods and services
- Maintain documentation supporting all transactions. Establish internal protocols to support this such as a single spreadsheet to track agency-wide transactions. Report your agency's expenses to the SEOC Finance team via your SEOC representative.

Questions, concerns, or comments should be directed to:

Primary Contact:

Rebecca Cook, Commodities Division Director

[Cookr6@michigan.gov](mailto:Cookr6@michigan.gov)

Cell: 517-930-4015

Secondary Contact:

Jeff Brownlee, Chief Procurement Officer

[brownleej@michigan.gov](mailto:brownleej@michigan.gov)

Cell: 517-930-3472

Sincerely,

Jeff Brownlee

Chief Procurement Officer

State of Michigan

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, February 03, 2016 11:31 AM  
**To:** Calahan, Heather (DTMB)  
**Subject:** FW: Flint Emergency Purchasing Procedures  
**Attachments:** Flint Emergency Purchasing Procedures.pdf

Please send to PLT as soon as possible.

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 2, 2016 2:34 PM  
**To:** Arbulu, Agustin (MDCR) <ArbuluA@michigan.gov>; Arwood, Steve (LARA) <ArwoodS@michigan.gov>; Clover Adams, Jamie (MDARD) <CloveradamsJ@michigan.gov>; Creagh, Keith (DEQ) <creaghk@michigan.gov>; Etue, Kriste (MSP) <EtueK@michigan.gov>; Johnson, Ruth (MDOS) <JohnsonR43@michigan.gov>; Khouri, Nick (TREASURY) <KhouriN@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>; Maj. Gen. Gregory Vадnais DMVA <gregory.j.vadnais.mil@mail.mil>; McPharlin, Pat (DIFS) <McPharlinP@michigan.gov>; Moritz, William (DNR) <MoritzW@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>; Schuette, Bill (AG) <SchuetteB@michigan.gov>; Steudle, Kirk (MDOT) <SteudleK@michigan.gov>; Washington, Heidi E. (MDOC) <WashingtonM5@michigan.gov>; Whiston, Brian (MDE) <WhistonB@michigan.gov>; Winters, Jan (MCSC) <WintersJ@michigan.gov>; Zimmer, Mike (LARA) <zimmerm@michigan.gov>; Allan, Jon (DEQ) <AllanJ@michigan.gov>; Barnes, Jeff (DMVA) <barnesj7@michigan.gov>; Bowen, Scott (MSL) <bowens1@michigan.gov>; Brader, Valerie (LARA) <braderv@michigan.gov>; Comai, Stephanie (TIA) <ComaiS1@michigan.gov>; Deloney, Andrew (LARA) <DeloneyA@michigan.gov>; Elsenheimer, Kevin (MSHDA) <ElsenheimerK@michigan.gov>; Goei, Bing (LARA) <GoeiB@michigan.gov>; Hawks, Orlene (DTMB) <HawksO@michigan.gov>; Kalm, Rick (MGCB) <KalmR@michigan.gov>; Ringler, Doug (OAG) <dringler@audgen.michigan.gov>; Waalkes, Marie (DTMB) <WaalkesM1@michigan.gov>  
**Subject:** Flint Emergency Purchasing Procedures

Please see the attached memo outlining Flint emergency purchasing procedures. Thank you.

Jeff Brownlee  
Ofc: 517-284-7003  
Cell: 517-930-3472



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET  
LANSING

DAVID B. BEHEN  
DIRECTOR

February 2, 2016

TO: State of Michigan Procurement Leadership  
FROM: DTMB Procurement  
SUBJECT: Genesee County Water Emergency Response - Purchasing Guidance

Thank you to all who are working to support the State of Michigan's Genesee County, City of Flint water emergency response.

Given the complexity and variety of the needs of this emergency effort, the purchasing support required is complex as well. Purchasing protocols have some differences under this declared state of emergency, and meticulous tracking of expenditures is imperative.

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Cell: 517-930-4015

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Jeff Brownlee, Chief Procurement Officer

[brownleej@michigan.gov](mailto:brownleej@michigan.gov)

Cell: 517-930-3472

Sincerely,

Jeff Brownlee

Chief Procurement Officer

State of Michigan



---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, February 03, 2016 11:32 AM  
**To:** Fortino, Diane (DTMB)  
**Subject:** FW: Flint Emergency Purchasing Procedures  
**Attachments:** Flint Emergency Purchasing Procedures.pdf

Will you please print 30 copies (2-sided) before the PLT, please?  
Thank you!

Jeff

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Tuesday, February 2, 2016 2:34 PM  
**To:** Arbulu, Agustin (MDCR) <ArbuluA@michigan.gov>; Arwood, Steve (LARA) <ArwoodS@michigan.gov>; Clover Adams, Jamie (MDARD) <Cloveradamsj@michigan.gov>; Creagh, Keith (DEQ) <creaghk@michigan.gov>; Etue, Kriste (MSP) <EtueK@michigan.gov>; Johnson, Ruth (MDOS) <JohnsonR43@michigan.gov>; Khouri, Nick (TREASURY) <KhouriN@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>; Maj. Gen. Gregory Vadnais DMVA <gregory.j.vadnais.mil@mail.mil>; McPharlin, Pat (DIFS) <McPharlinP@michigan.gov>; Moritz, William (DNR) <MoritzW@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>; Schuette, Bill (AG) <SchuetteB@michigan.gov>; Steudle, Kirk (MDOT) <SteudleK@michigan.gov>; Washington, Heidi E. (MDOC) <WashingtonM6@michigan.gov>; Whiston, Brian (MDE) <WhistonB@michigan.gov>; Winters, Jan (MCSC) <WintersJ@michigan.gov>; Zimmer, Mike (LARA) <zimmerm@michigan.gov>; Allan, Jon (DEQ) <AllanJ@michigan.gov>; Barnes, Jeff (DMVA) <barnesj7@michigan.gov>; Bowen, Scott (MSL) <bowens1@michigan.gov>; Brader, Valerie (LARA) <braderv@michigan.gov>; Comai, Stephanie (TIA) <ComaiS1@michigan.gov>; Deloney, Andrew (LARA) <DeloneyA@michigan.gov>; Elsenheimer, Kevin (MSHDA) <ElsenheimerK@michigan.gov>; Goei, Bing (LARA) <GoeiB@michigan.gov>; Hawks, Orlene (DTMB) <HawksO@michigan.gov>; Kalm, Rick (MGCB) <KalmR@michigan.gov>; Ringler, Doug (OAG) <dringler@audgen.michigan.gov>; Waalkes, Marie (DTMB) <WaalkesM1@michigan.gov>  
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LANSING

DAVID B. BEHEN  
DIRECTOR

February 2, 2016

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Cell: 517-930-4015

Secondary Contact:

Jeff Brownlee, Chief Procurement Officer

[brownleej@michigan.gov](mailto:brownleej@michigan.gov)

Cell: 517-930-3472

Sincerely,

Jeff Brownlee

Chief Procurement Officer

State of Michigan

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 04, 2016 1:12 PM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: Emergency Response for Flint Michigan Water Contamination

Green light! Great letter!

Sent from my iPhone

Begin forwarded message:

**From:** "Stibitz, Brom (DTMB)" <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Date:** February 4, 2016 at 12:53:28 PM EST  
**To:** "Buhs, Caleb (DTMB)" <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>, "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Cc:** "Riehle, Jenni (DTMB)" <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>, "Wellman, Jeff (DTMB)" <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>  
**Subject:** RE: Emergency Response for Flint Michigan Water Contamination

Thanks. I let the Gov's office know that we would start sending that out.

---

**From:** Buhs, Caleb (DTMB)  
**Sent:** Thursday, February 04, 2016 12:36 PM  
**To:** Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Cc:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>; Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>  
**Subject:** RE: Emergency Response for Flint Michigan Water Contamination

This looks good to me.

-Caleb

---

**From:** Stibitz, Brom (DTMB)  
**Sent:** Thursday, February 4, 2016 10:55 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Cc:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>; Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>; Buhs, Caleb (DTMB) <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>  
**Subject:** Re: Emergency Response for Flint Michigan Water Contamination

Caleb - due to the high profile nature of this, would you please take a look at this response, which would be sent to any vendor who submits their information on the automated form for Flint?

Thanks,

Brom Stibitz

On Feb 4, 2016, at 10:48 AM, Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)> wrote:

Looks good to me, Jenni. Brom, any reason to delay this going live?

Sent from my iPhone

On Feb 4, 2016, at 10:45 AM, Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)> wrote:

Good Morning,

Below is a draft of a standard email response that I would send out after receiving any submissions from the form on the Contract Connect website. Please let me know if you have any edits.

*Greetings,*

*Thank you for your recent submission to the State of Michigan's purchasing department. All vendor submissions to assist the Flint emergency will be reviewed. You **may** be contacted by state representatives for additional information regarding your product or service. **Not all vendors will be contacted** to provide additional information.*

*We encourage you to register your business on the state's bid posting website [www.Buy4Michigan.com](http://www.Buy4Michigan.com). This is where the state will post contract opportunities \$10,000 and above. The state is required to competitively bid the purchase of most goods and services.*

*You may also register your business on the Contract and Payment Express which is the state's electronic fund transfer system. In the event that you are awarded a contract or the state would like to make a purchase from your company, registration on this website will ensure you are able to be paid. Visit [www.michigan.gov/cpexpress](http://www.michigan.gov/cpexpress).*

*For more information on the state's contracting process, please visit the Contract Connect website at [www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect). The Contract Connect website will provide you with training tutorials, purchasing laws and policies, and much more.*

*Thank you again for your submission and readiness to assist the residents of Flint.*

*Sincerely,*

*Department of Technology, Management and Budget –  
Procurement  
[DTMB-micontractconnect@michigan.gov](mailto:DTMB-micontractconnect@michigan.gov)*

Thanks,

Jenni

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Wednesday, February 03, 2016 4:57 PM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Cc:** Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Subject:** RE: Emergency Response for Flint Michigan Water Contamination

After they submit the form the website will say that the submission was successful. I can manually send out a standard email as I receive submissions coming in. I would need an email box dedicated solely for this to make the email responses automatic.

I can type up a draft of a standard email and get it over to you tomorrow morning for review.

Thanks,

Jenni

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, February 03, 2016 3:26 PM  
**To:** Riehle, Jenni (DTMB) <[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Cc:** Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Subject:** Fwd: Emergency Response for Flint Michigan Water Contamination

Jenni,  
Can you do this? Please confirm and provide a timeline, pls.  
Thank you,  
Jeff

Sent from my iPhone

Begin forwarded message:

**From:** "Stibitz, Brom (DTMB)"  
<[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Date:** February 3, 2016 at 3:24:31 PM EST  
**To:** "Riehle, Jenni (DTMB)"  
<[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov)>  
**Cc:** "Brownlee, Jeff (DTMB)"  
<[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Fwd: Emergency Response for Flint Michigan Water Contamination

Can we generate a confirmation email?

Thanks,

Brom Stibitz

Begin forwarded message:

**From:** "Sachs, Tori (GOV)"  
<[SachsT@michigan.gov](mailto:SachsT@michigan.gov)>  
**Date:** February 3, 2016 at 3:22:42 PM EST  
**To:** "Stibitz, Brom (DTMB)"  
<[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>  
**Cc:** "Stoken, Laura (GOV)"  
<[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** Fwd: Emergency Response for Flint Michigan Water Contamination

Hi Brom,

Any way we can get this to happen?  
See below.

Thanks  
Tori

Begin forwarded message:

**From:** "Stoken, Laura (GOV)"  
<[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Date:** February 3, 2016 at 3:20:44 PM EST  
**To:** "Sachs, Tori (GOV)"  
<[SachsT@michigan.gov](mailto:SachsT@michigan.gov)>  
**Subject:** FW: Emergency Response for Flint Michigan Water Contamination

Is there any way to have DTMB send a confirmation receipt to folks that submit their companies information online? We are getting many people wondering if their

submission went  
through.

Thank you,

Laura

**From:** Christopher  
Persad  
[mailto:[cjpersad@aditechnologies.com](mailto:cjpersad@aditechnologies.com)]

**Sent:** Wednesday,  
February 03, 2016  
12:49 PM

**To:** Stoken, Laura (GOV)  
<[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>; Snyder, Rick (GOV)  
<[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>

**Subject:** Emergency  
Response for Flint  
Michigan Water  
Contamination

Good afternoon,

I just finished  
completing and  
submitting our  
emergency vendor aid  
sheet, and I never  
received any sort of  
confirmation that it  
was sent. Would it be  
possible for you to  
direct me to the right  
people, or place to  
confirm that this did  
go through. If it did  
not then I will need to  
resend it, that's okay I  
just don't know if it  
went through. Please  
see attachment to  
view completed  
document.

Thank You,  
B/R

--



## **CJ Persad**

*ADI Technologies, Inc.  
1487 Chain Bridge Road, Suite  
254  
McLean, VA 22101 USA  
(703) 734-9626 ext.221  
FAX (703) 448-8591  
[cjpersad@aditechnologies.com](mailto:cjpersad@aditechnologies.com)*



[www.aditechnologies.com](http://www.aditechnologies.com)

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Friday, February 05, 2016 2:37 PM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: LANDSTAR EMERGENCY TRANSPORTATION SERVICES - DISASTER RELIEF - FLINT MI WATER SUPPLY  
**Attachments:** ATT00001.htm; ATT00002.htm; ATT00003.htm; ATT00004.htm; ATT00005.htm; ATT00006.htm; ATT00007.htm; ATT00008.htm; ATT00009.htm; Landstar Emergency Transportation Services 2013.pptx; ATT00010.htm; John T Langeveld; ATT00011.htm; Landstar (JNJ) Contact List -.pdf; ATT00012.htm

FYI

Sent from my iPhone

Begin forwarded message:

**From:** "John Langeveld" <[john.langeveld@landstarmail.com](mailto:john.langeveld@landstarmail.com)>  
**To:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** LANDSTAR EMERGENCY TRANSPORTATION SERVICES - DISASTER RELIEF - FLINT MI WATER SUPPLY

# Emergency Transportation Services

Dear Mr. Brownlee,

We can help!

Landstar provided the city of New Orleans post Hurricane Katrina with over One hundred Water Tankers to provide **Clean Potable Drinking Water** public schools, hospitals, cruise ships that housed all emergency personnel and other public facilities.

Attached is a document that outlines some of our services.

-

Landstar offers extensive Emergency Logistics Services:

<!--[if !supportLists]-->● <!--[endif]-->Access to over several hundred large 6500 gallon water tankers.

<!--[if !supportLists]-->● <!--[endif]-->Straight trucks with lift gates to address any specific need.

**Please let me know if we can be of service during this difficult time with the contamination of the water supply in Flint. We can strategically position Tanks around the city to support both public facilities & the local residential communities.**

-

**Tankers**

<!--[if !supportLists]-->■ <!--[endif]-->6500 Gallon Capacity

<!--[if !supportLists]-->■ <!--[endif]-->Potable Water

**Please see attached for your Landstar Contact List**

**(24/7/365) John 908-675-6806**

Thank you,

John

John T Langeveld

Landstar/JNJ Global Logistics

General Manager

Ph: 732.292.9070

Fax: 732.292.9075

Cell: 908.675.6806

Email: [john.langeveld@landstarmail.com](mailto:john.langeveld@landstarmail.com)

Web: [www.jnjgloballogistics.com](http://www.jnjgloballogistics.com)

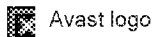
**Connect with us!**

**All Modes of Transportation:**

Truckload • LTL • Heavy Haul / Specialized • Tankers • Expedited • Intermodal • Air • Ocean

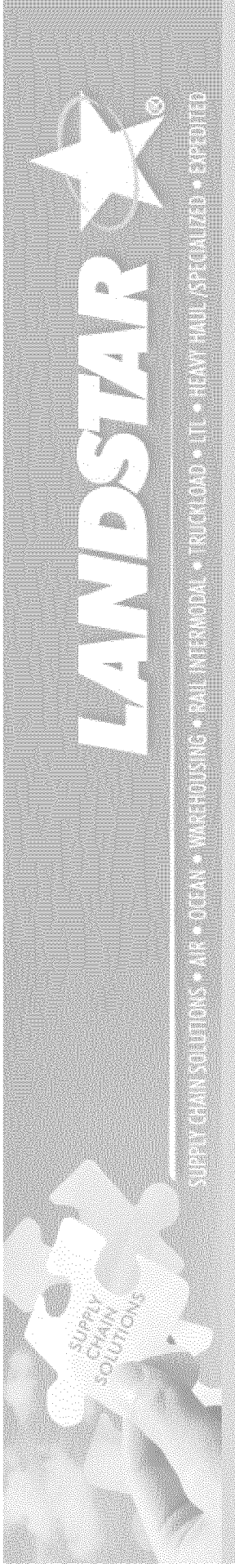
Transportation Management Solutions • Warehousing • Cold Chain Logistics • Emergency Transportation Services

Parcel Shipping Analysis

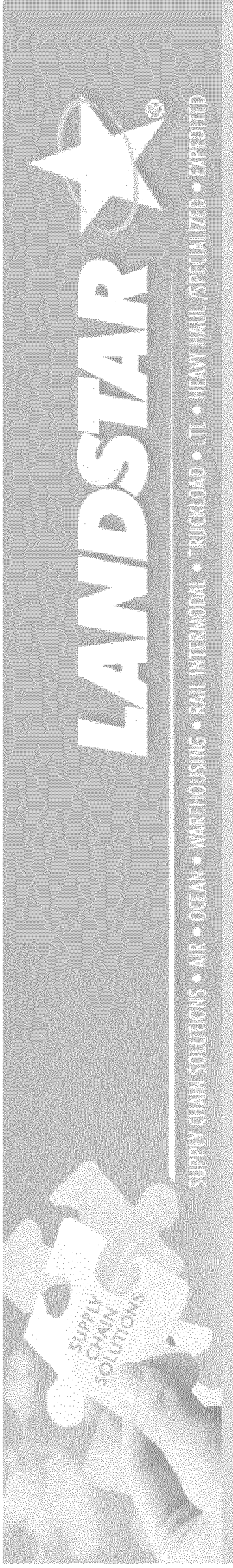


This email has been checked for viruses by Avast antivirus software.

[www.avast.com](http://www.avast.com)



# Emergency Transportation Services Projects



## Corporate Overview

### Landstar Transportation Logistics

*Landstar Express America*

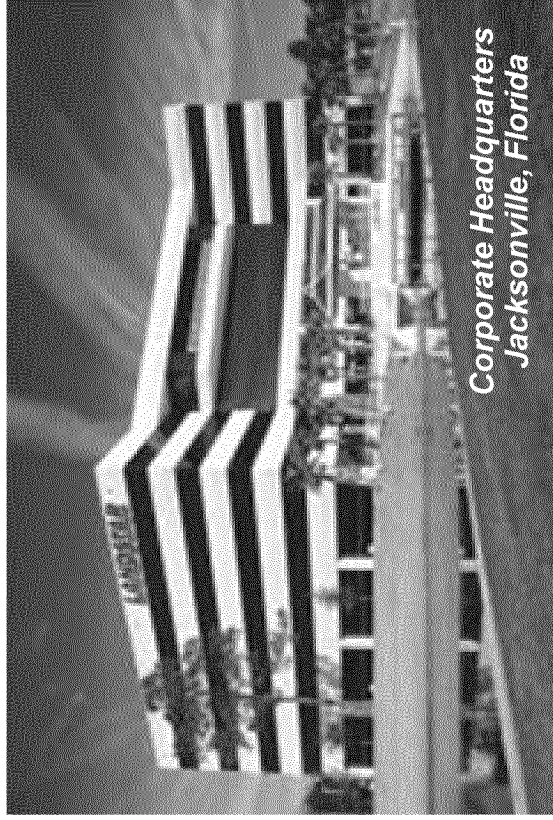
*Landstar Ligon    Landstar Inway*

*Landstar Ranger    Landstar Gemini*

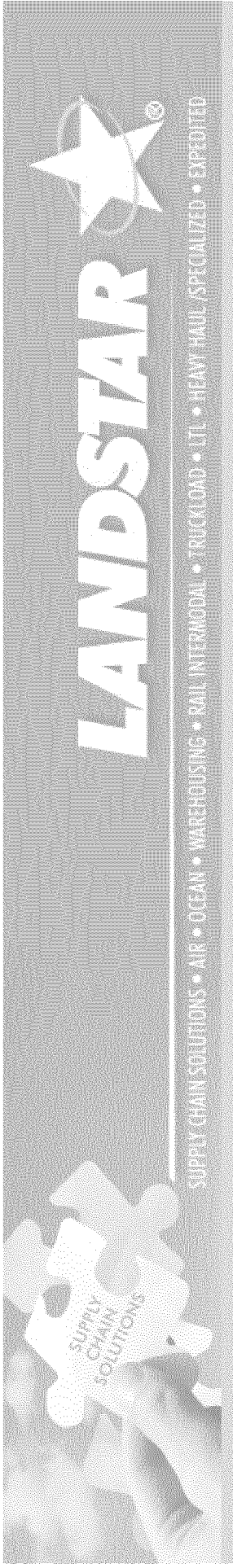
*Landstar Global Logistics*

*Landstar Supply Chain Solutions*

- Corporate Sales \$2.65 billion
  - Operating income \$183 million
- Employees - 1,291
- Independent Agents – 1,428
- Business Capacity Owners – 7,871
- Contracts with over 28,495 3<sup>rd</sup> Party Capacity Providers
  - Motor Carriers, Railroads, Ocean Lines & Airlines
- Warehouse Space - 63 facilities & 21.5 Million Square Feet Nationwide
- Publicly Traded on NASDAQ market – LSTR
- Dow Jones Transportation Index





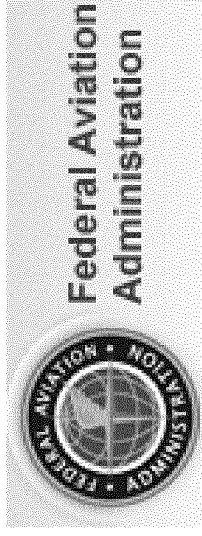


## Past Performance

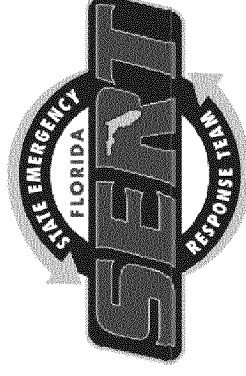
- Landstar provides transportation and logistics services to NGO, state, and Federal agencies providing support functions under ESF #1, ESF #6 and ESF #7 of the National Response Framework



U.S. Department of  
Health & Human Services



Federal Aviation  
Administration

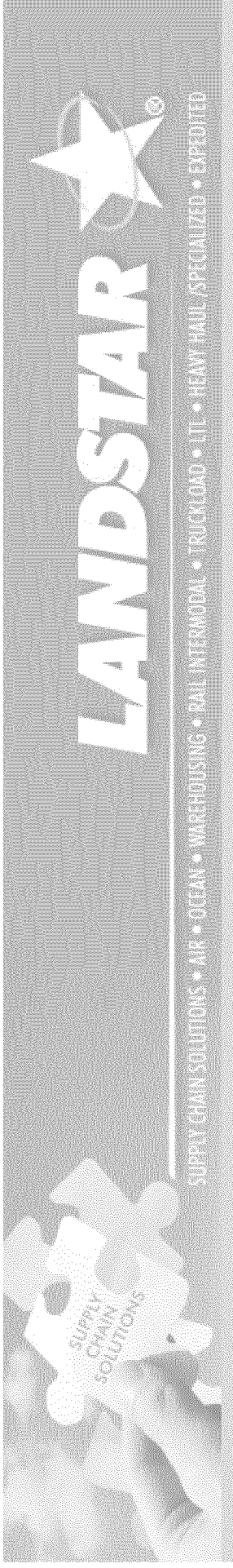


FEMA



Governor's Office





## Past Performance

### 2001 Competitive Contract Award with FAA

#### 9/11 Terrorist Attack on New York & D.C.

- 309 orders, emergency worker buses to & from WTC, straight trucks with lift-gates, flatbeds with forklifts

### 2002 Hurricane Lili

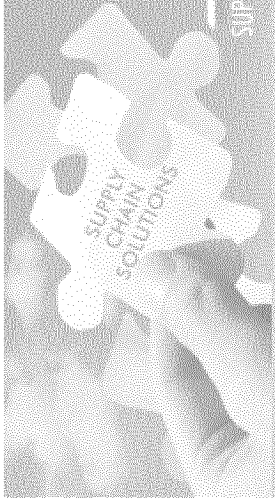
- 39 tasks, 114 orders. shuttle and linehaul trucks
- New IT functionality executed to provide real-time task tracking and web reports

### 2003 Hurricane Isabel

- 97 tasks, 422 orders – shuttle, linehaul, trailer rental, staff Ft. Eustis

### 2004 Hurricanes: Charley, Frances, Ivan, Jeanne

- 575 Tasks, 10,619 orders
- Travel trailer and mobile home shipments
- Created Task Management System for shipment and equipment tracking



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## Past Performance

### 2005 Hurricanes Dennis, Emily, Katrina, Rita, Ophelia, Wilma

- 593 Tasks, 25,086 orders
- Post Katrina evacuation
  - 1,000 buses (65,000 people) & 100 flights (24,000 people)

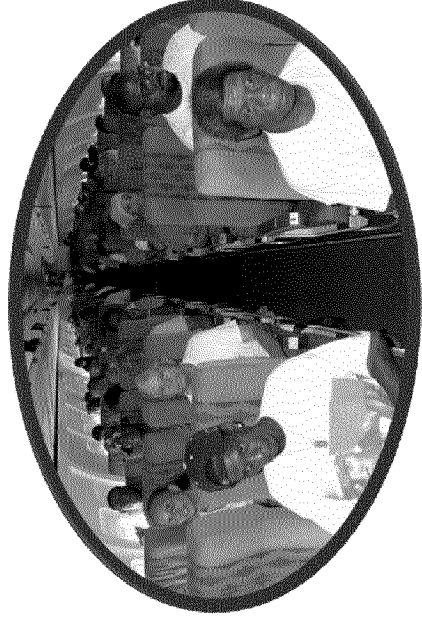


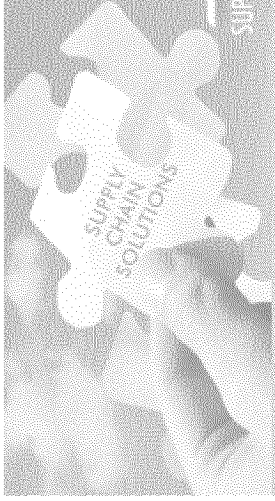
### 2006 Hurricane Ernesto, Floods in NY & PA, Fires in CA

- Pre-positioning trailers, forklifts
- 609 tasks, 9,911 orders

### 2007 FEMA Prepositioning, Hurricane Dean, California Fires, Kansas Flood

- 183 tasks, 2,730 orders





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## Past Performance

**2008**    **1) Hurricanes Gustav & Ike**

**2) FEMA, TPASS, LA GOSHEP, FDEM**

- 183 tasks, 2,730 orders

**3) Louisiana Evacuation**

- 650 buses

**4) HHS**

- 63 Tasks

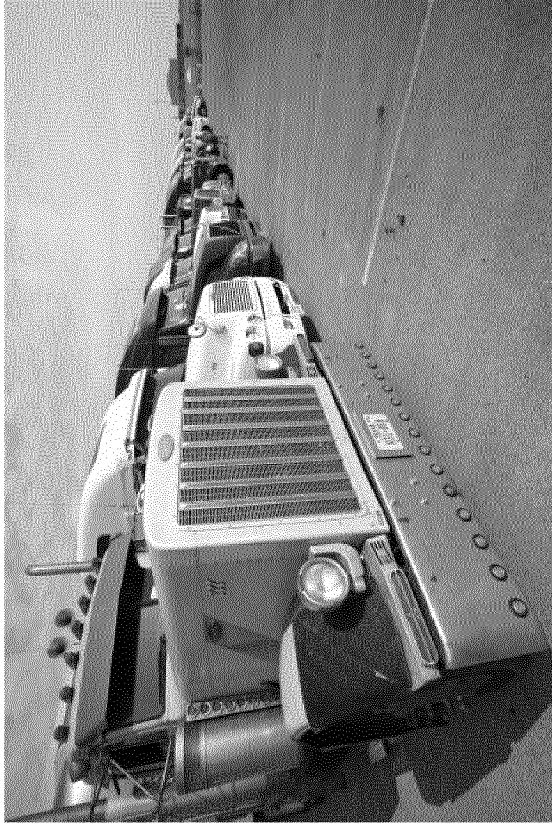
**2009**    **1) Presidential Declarations**

- Winter storms 1812-1828, North Dakota and Georgia Flooding 1829 & 1858, American Samoa Tsunami 1859
- 100 tasks

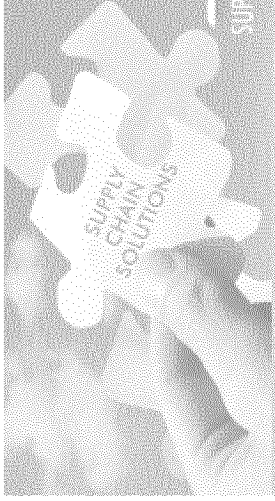
**2) North Carolina & Florida – H1N1 supplies**

**3) HHS**

- 39 tasks







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## Past Performance

### 2010 1) Hurricanes Alex and Earl

- 9 tasks, 170 orders

### 2) Floods in North Dakota and Tennessee

- 9 tasks, 234 orders

### 3) FEMA Disaster Prepositioning

- 69 tasks, 171 orders

### 4) Haiti Earthquake

- 1 tasks, 415 orders

### 2011

#### 1) Presidential Declarations

- Floods, Tornadoes, and Tropical Storms (Lee, Nicole)
  - 27 tasks, 677 orders

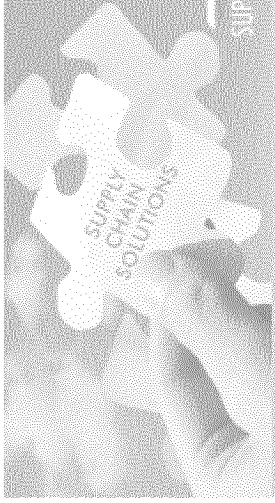
#### 2) Hurricane Irene

- 21 tasks, 509 orders

#### 3) FEMA Disaster Prepositioning

- 51 tasks, 419 orders

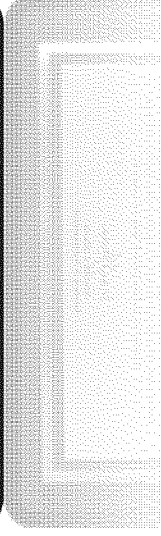
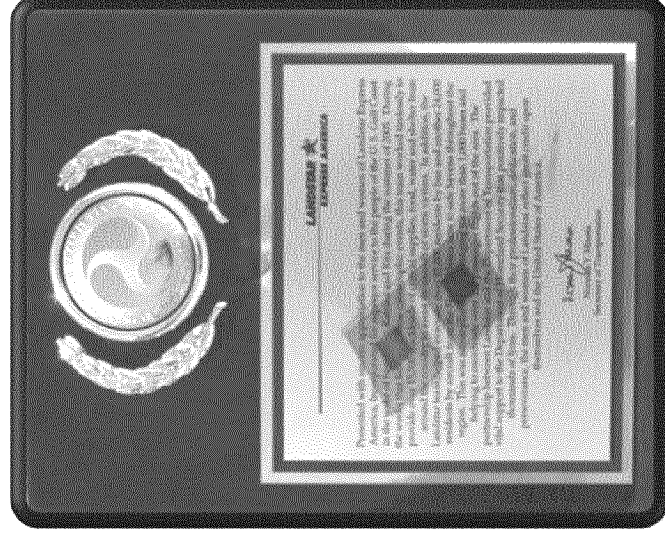




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## Recognition For Distinguished Service

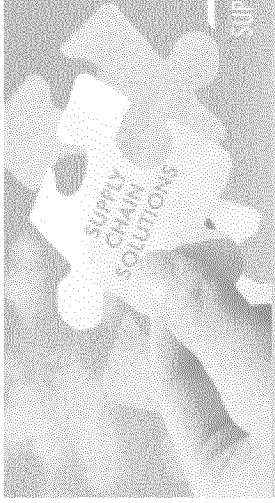
Secretary N. Mineta,  
DOT, Recognized  
Landstar Operators as  
Unsung Hero's of  
Hurricane Katrina



Landstar President &  
CEO Henry Gerkens  
Honored in Washington  
for Distinguished  
Service During  
Hurricane Katrina & Rita  
by Secretary N. Mineta

**[Speaker Notes For Slide: 8]**

**David Miller**



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## Emergency Operations Center

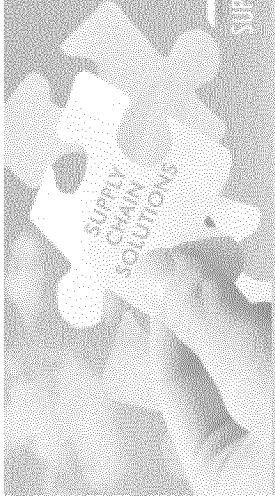
### Experienced & Dedicated Professionals

- ▶ Concurrent staff operations and Task Management System updates in Jacksonville, FL and Rockford, IL



- ▶ Fully Staffed by Landstar personnel, 24x7x365
- ▶ Experienced and trained staff to direct drivers and service providers under state and federal emergency situation
- ▶ Provides overall situational awareness for each state or Federal agency





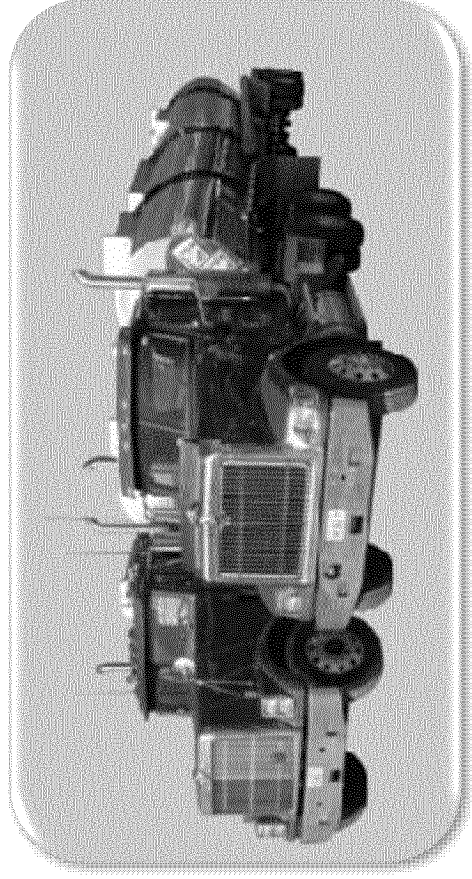
# LANDSTAR<sup>®</sup>

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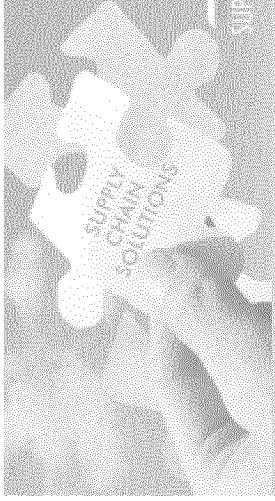
## Motor-Coach Passenger Service

- Move emergency services personnel as a team
- Door-to-Aircraft service for charters



## Emergency Fuel Delivery

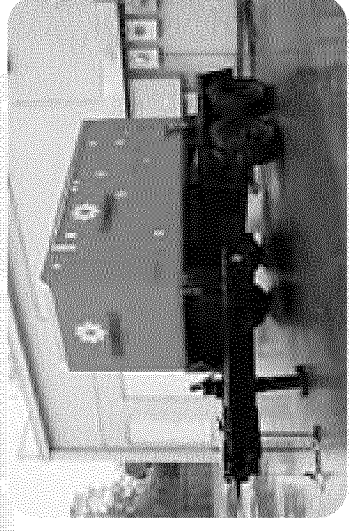
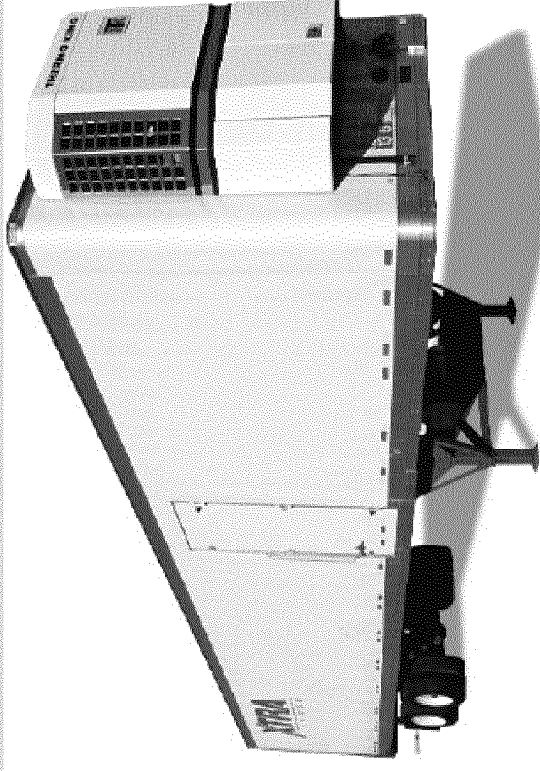
- Fuel delivered in bulk or directly to equipment
  - Keep equipment at staging area ready to go
  - Fuel vehicles, reefer trailers, and generators in the field
  - Teaming agreement with Foster Fuels, Inc.

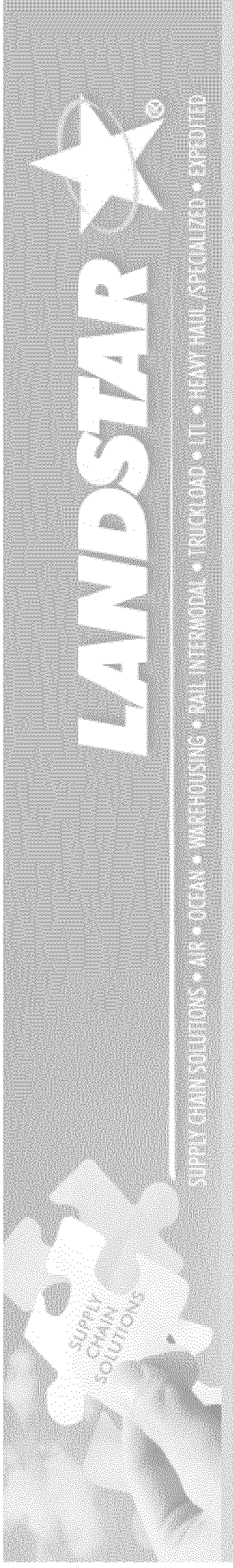


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## Trailers, Material Handling Equipment and Services

- Lease dry van, refrigerated, specialized trailers, and material handling equipment
- Maintenance and fueling of trailer equipment at staging areas





## Task Management System

*The only transportation management system designed to track all the shipments and services ordered for emergency response!*



- Event-wide transportation situational awareness
- Every shipment on every task is tracked in 2-4 hour intervals around the clock
- Detailed pro-active communications with your EOC, vendor, and the POD

# LANDSTAR/JNJ Team Customer Service Contact List

## Weekday Coverage

### **Christine Gibbons | LANDSTAR**

Operations Manager

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

[Christine.gibbons@landstarmail.com](mailto:Christine.gibbons@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **Dolores Fulgham | LANDSTAR**

Operations / Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

[Dolores.fulgham@landstarmail.com](mailto:Dolores.fulgham@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **Mike White | LANDSTAR**

Operations / Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 732-606-6266

[Mike.white@landstarmail.com](mailto:Mike.white@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **Rose Polk | LANDSTAR**

CSR

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

[Rosemary.polk@landstarmail.com](mailto:Rosemary.polk@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **Kathy Langeveld | LANDSTAR**

Administration

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

[Kathy.langeveld@landstarmail.com](mailto:Kathy.langeveld@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

## Weekend Coverage

### **Mike White | LANDSTAR**

Operations / Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 732-606-6266

[Mike.white@landstarmail.com](mailto:Mike.white@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **John Langeveld | LANDSTAR**

Sales / Operations Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 908-675-6806

[John.langeveld@landstarmail.com](mailto:John.langeveld@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

## Weekend Night Coverage

### **Mike White | LANDSTAR**

Dispatch

1500 meeting House road | Sea Girt, NJ 08736

Office: 732-292-9070 Fax: 732-292-9075

Cell: 732-606-6266

[Mike.white@landstarmail.com](mailto:Mike.white@landstarmail.com) | [www.inigloballogistics.com](http://www.inigloballogistics.com)

### **John Langeveld | LANDSTAR**

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, February 10, 2016 10:09 PM  
**To:** Weise, Kevin (MSP);Baird, Richard (GOV)  
**Subject:** Mission Flint: Procurement Model  
**Attachments:** 20160210 Flint Procurement Model.pdf

Kevin & Rich,

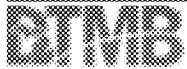
As I know I'm going to have some selling to do to get team members, I've put together the attached draft of a straw-man procurement model based on our conversation today. Please have a look, and I welcome any feedback. Kevin, I have a few questions for you now that I've had a few hours to reflect on our conversation. Please let me know if you have any availability on Thurs or Fri.

Have a good evening.

Thanks,

Jeff

Jeff Brownlee  
Chief Procurement Officer  
State of Michigan, DTMB  
517.284.7012  
[brownleej@michigan.gov](mailto:brownleej@michigan.gov)



**HELP. CONNECT. SOLVE.**



# **Mission Flint: Procurement Model**

February 10, 2016

**DRAFT**

# Mission Flint Procurement Overview

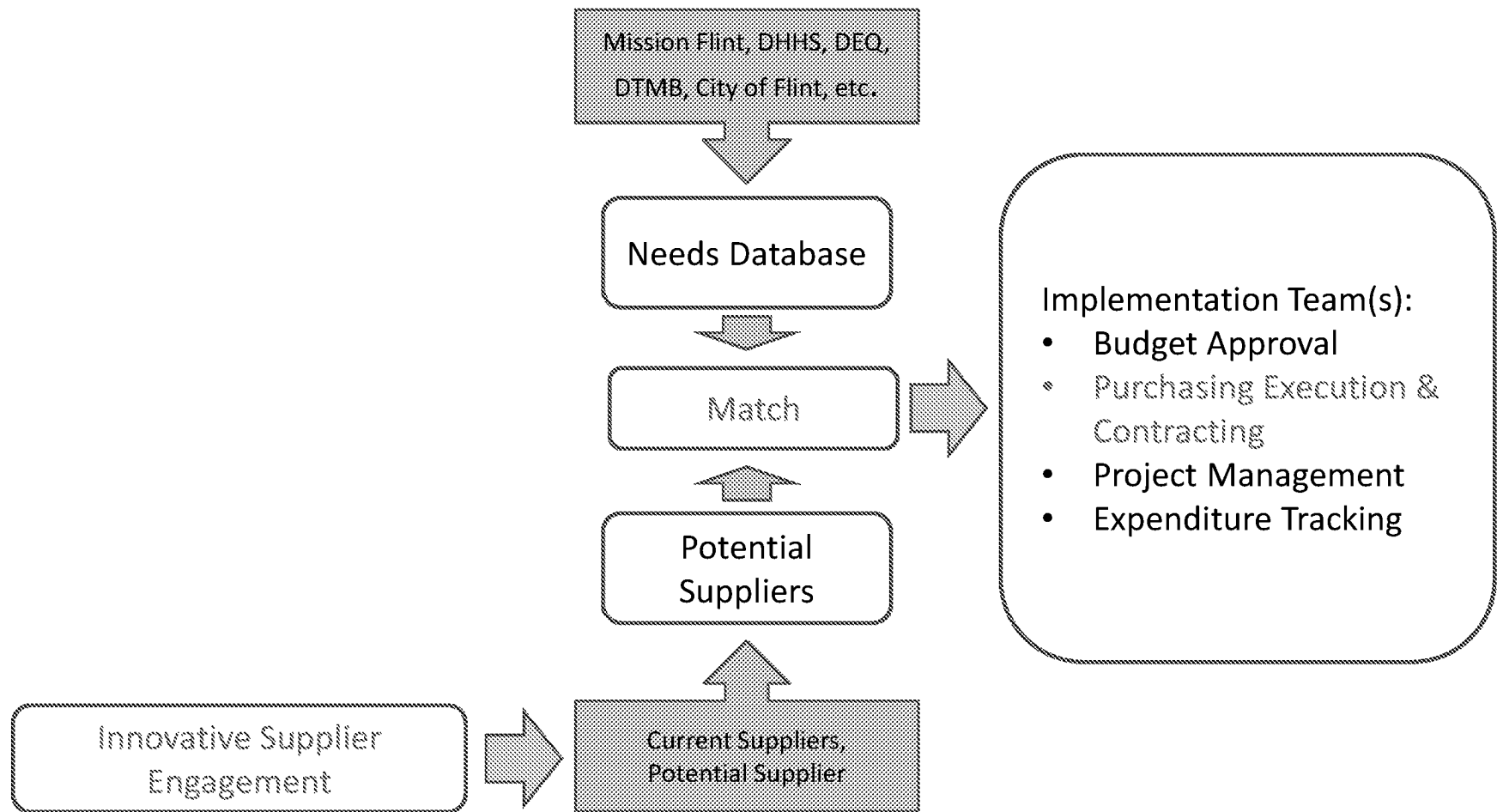
## Purpose.

The purpose of the Mission Flint Joint Procurement team—a multi-agency collaborative—is to provide attentive, efficient, risk-based purchasing support to the Mission Flint effort by:

1. Facilitating the alignment/match of suppliers with needs identified by the Mission Flint team
2. Owning the contracting process for all Mission Flint purchasing;
3. Facilitating transactions, supported by agency purchasing teams
4. Taking a lead role in developing and executing innovative [potential] supplier engagement



# Mission Flint Procurement Overview



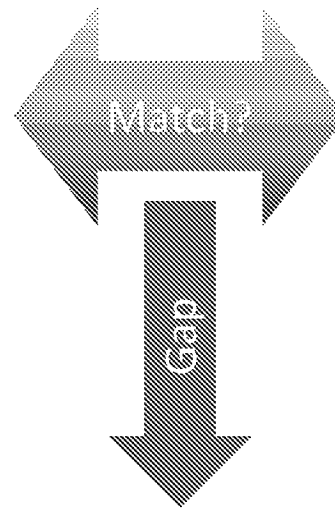
# Needs/Supplier Alignment

## Needs Database

- Content determined and owned by Mission Flint core team
- Potential Inputs include, but not limited to, DHHS, DEQ, City of Flint, DTMB
- Content fed to Needs Database, maintained by Flint Joint Procurement team

## Potential Suppliers Database

- Owned and Maintained by Flint Joint Procurement team
  - Current State Suppliers
  - Sellers
  - Pro Bono Partners
  - Unsolicited “Baiters”
  - Innovators



Innovative Supplier  
Engagement

# Purchasing Execution & Contracting

## *Urgent, risk-based, efficient and responsible transacting*

- Lead the contracting efforts for Mission Flint, engaging appropriate business owners, SMEs, and legal experts
- Supported by applicable agency purchasing teams: purchase orders are to be issued by the purchasing teams within the financially responsible agency.
- Supply chain support from DTMB Central Procurement
- Supported by the Attorney General's Office as deemed necessary on a case by case basis
- All new contracts must receive advance signoff from the State Budget Director, Chief Procurement Officer, and Mission Flint Chief of Staff, or their designees
- State Administrative Board procedures and thresholds apply to all purchases

# Innovative Supplier Engagement

Unique and unprecedented situations require fresh and innovative approaches to problem solving. In this case, supplier engagement is critical:

- Identifying and soliciting suppliers to solve unique problems, both short and long term
- Identifying and soliciting citizen-focused service partners (pro bono, or similar)
- Public/private problem solving

# Action Steps

## Immediate Next Steps:

- Brownlee/Weise connect regarding timing and communication strategy: need to be able to articulate the commitments needed from agencies and the timing of inputs—budget and identified needs
- Draft memo to applicable leaders to secure high-performer team members:
  - DHHS
  - DEQ
  - DTMB Central Procurement
  - City of Flint
  - Contractors – is there a budget for this?
- Secure AG support
- Obtain legal definition “Emergency purchasing”

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, February 17, 2016 11:43 AM  
**To:** Bankowski, Jeffrey S. (DTMB)  
**Subject:** Re: Purchase Power: A Special Report on State Procurement

Thanks, Jeff. Again, I appreciated the call last night as well!

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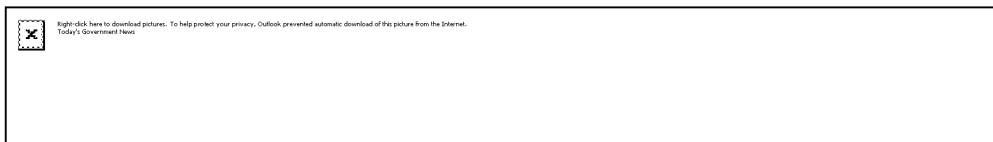
**From:** Bankowski, Jeffrey S. (DTMB)  
**Sent:** Wednesday, February 17, 2016 10:39 AM  
**To:** Wellman, Jeff (DTMB); Brownlee, Jeff (DTMB)  
**Cc:** Sud, Swatantra (DTMB); Lowe, Richard (DTMB)  
**Subject:** FW: Purchase Power: A Special Report on State Procurement

Just fyi

---

**From:** GOVERNING Daily [mailto:newsletters@governing.com]  
**Sent:** Wednesday, February 17, 2016 9:21 AM  
**To:** Bankowski, Jeffrey S. (DTMB)  
**Subject:** Purchase Power: A Special Report on State Procurement

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FEATURED STORY FOR FEBRUARY 17, 2016

## Purchase Power: A Special Report on State Procurement

Procurement is at the heart of almost everything a government does. But states vary widely when it comes to how well they manage the things they buy.

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Wednesday, February 17, 2016 4:41 PM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Re: Assistance for Flint

Perfect!

---

**From:** Riehle, Jenni (DTMB)  
**Sent:** Wednesday, February 17, 2016 4:32 PM  
**To:** Stephen, Kimberly (DHHS)  
**Cc:** Brownlee, Jeff (DTMB)  
**Subject:** FW: Assistance for Flint

Hello Kim,

Jeff Brownlee has asked that I forward you the following submission for in-kind services to assist the City of Flint. You will see our standard response to the inquiry in the email directly below.

Thank you,

Jenni Riehle

**Communications and Outreach Coordinator**  
*State Of Michigan : DTMB -- Procurement*  
*Constitution Hall, 1<sup>st</sup> Floor, NE*  
*525 West Allegan, Lansing, Michigan 48909*

[Riehlej2@michigan.gov](mailto:Riehlej2@michigan.gov) : 517-284-7023  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)



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**From:** Riehle, Jenni (DTMB)  
**Sent:** Wednesday, February 17, 2016 4:29 PM  
**To:** 'rmerchant@mc calvey.com' <[rmerchant@mc calvey.com](mailto:rmerchant@mc calvey.com)>  
**Cc:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** RE: Assistance for Flint

*Greetings,*

*Thank you for your recent submission to the State of Michigan's purchasing department. All vendor submissions to assist the Flint emergency will be reviewed. You **may** be contacted by state representatives for additional information regarding your product or service. **Not all vendors will be contacted** to provide additional information.*

*We encourage you to register your business on the state's bid posting website [www.Buy4Michigan.com](http://www.Buy4Michigan.com). This is where the state will post contract opportunities \$10,000 and above. The state is required to competitively bid the purchase of most goods and services.*

*You may also register your business on the Contract and Payment Express which is the state's electronic fund transfer system. In the event that you are awarded a contract or the state would like to make a purchase from your company, registration on this website will ensure you are able to be paid. Visit [www.michigan.gov/cpexpress](http://www.michigan.gov/cpexpress).*

*For more information on the state's contracting process, please visit the Contract Connect website at [www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect). The Contract Connect website will provide you with training tutorials, purchasing laws and policies, and much more.*

*Thank you again for your submission and readiness to assist the residents of Flint.*

*Sincerely,*

*Department of Technology, Management and Budget – Procurement  
[DTMB-micontractconnect@michigan.gov](mailto:DTMB-micontractconnect@michigan.gov)*

---

**From:** Rusty Merchant [<mailto:rmerchant@mcvalvey.com>]  
**Sent:** Thursday, February 11, 2016 11:23 AM  
**To:** Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Assistance for Flint

Jeff:

Jamie Z gave me you name and contact info to inquire about a client who is looking to donate some dollars to help the kids in Flint. They are interested in helping with something that teaches the kids about nutrition as opposed to just providing food. I wondered if you might have any insights on where the appropriate place to go would be.

Thank you!  
Rusty Merchant  
McAlvey Merchant & Associates

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 18, 2016 9:24 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: Flint water problems.  
**Attachments:** IMG\_0001.JPG; ATT00001.htm; IMG\_0009.JPG; ATT00002.htm; ATT66402.eml; ATT00003.htm; ReportViewer.pdf; ATT00004.htm; water testing2-6.pdf; ATT00005.htm

Here's one.

Sent from my iPhone

Begin forwarded message:

**From:** "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>  
**To:** "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>, "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** Fwd: FW: Flint water problems.

Sent from my Verizon 4G LTE Droid

----- Forwarded message -----

From: "Scott, Allison (GOV)" <[scotta12@michigan.gov](mailto:scotta12@michigan.gov)>  
Date: Feb 16, 2016 9:46 AM  
Subject: FW: Flint water problems.  
To: "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
Cc: "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>

For your review

From: Jackie Goforth (US - Assurance) [<mailto:jacalyn.s.goforth@pwc.com>]  
Sent: Tuesday, February 16, 2016 9:33 AM  
To: Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
Cc: Richard L. Baird <[rbaird003@hotmail.com](mailto:rbaird003@hotmail.com)>; Scott, Allison (GOV) <[scotta12@michigan.gov](mailto:scotta12@michigan.gov)>  
Subject: Fwd: Flint water problems.

Rick,

First, let me say that my thoughts and prayers have been with you and your team. I can't even imagine the heartache you are experiencing over this situation.

You know how friends are, we can't help but try to see what ideas we can come up with to help provide some type of solution. One my High School friends thinks she and her family have one.

It is a Michigan based company that has a water filtration solution. Below is the information he shared with Debbie Stabenow, you may have already seen this, but in case you haven't I thought I would pass it along.

I can't think of a person better suited to lead us all through this situation. Thank you for your balanced and thoughtful leadership.

Kindest Regards,

Jackie

----- Forwarded message -----

From: Marybeth Novitsky <[mbmills989@gmail.com](mailto:mbmills989@gmail.com)<<mailto:mbmills989@gmail.com>>>

Date: Mon, Feb 15, 2016 at 7:54 PM

Subject: Fwd: Flint water problems.

To: [jacalyn.s.goforth@us.pwc.com](mailto:jacalyn.s.goforth@us.pwc.com)<<mailto:jacalyn.s.goforth@us.pwc.com>>, [jacalyn.s.goforth@pwc.com](mailto:jacalyn.s.goforth@pwc.com)<<mailto:jacalyn.s.goforth@pwc.com>>

Cc: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)<<mailto:joe@jsn-aia.com>>>

Jackie -

Here is the letter that Joe sent to Senator Stabenow. Since then, the Merlin was installed at St Mary's church to supply water for the homeless, in their shelter. The next Merlin will be installed at St Luke's Women's and Children's Center. Thank you for your efforts.

We appreciate it.

Marybeth

----- Forwarded message -----

From: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Date: Thu, Jan 28, 2016 at 12:45 PM

Subject: Flint water problems.

To: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Good Morning Senator.

Please take the time to read this—WE CAN HELP--

This is Joe Novitsky, Architect and inventor of a water purifier that can eliminate or minimize the bottled water eco disaster pending in Flint.

We have been studying the problem, testing the water, and watched you last night on Rachael's show.

YOU DID GREAT! You are the ONLY one that understands the problem right now—even Rachael is not as clear as you on the solution.

Yes, we need filtered water and no one is ever going to dig up the entire City—the pipes will re-coat, and the new supply from Lake Huron will be complete within 18 months and the City system will again be healthy, but what to do until then?

We have a plan.

Of the 100K residents affected we estimate 25,000 households, and 14,000 businesses, based on information taken from the internet.

Each household of 4 needs 5 gallons per day for drinking and cooking.

We can service this need with approximately 300 units, distributed across the City with the HELP OF the COMMUNITY, and that is where you come in. These Places distributing water must be relieved from paying for the water being distributed. If that can be accomplished, we can solve this 18 month problem for about \$2.5M—FAR LESS than any other proposed effort we have heard about.

We would recommend filtered shower heads, ( about \$50 each), maybe for the clothes washer as well, and one Merlin Eco Solutions unit for about 80-100 homes ( one unit / station per every three blocks), at \$2,000 each, installed by currently unemployed technicians and Vets- that will be paid to do this. We could distribute in 5 gallon camping containers, and each resident would have to lug their daily water no more than a block and a half. It's a pain – but what other REAL choice do we have? The filters they are distributing now are good for 100 gallons, untested, and again an eco-disaster in and of themselves. Our lead filters do not have to be changed for up to 10,000 each and the first primary filter is ceramic and can be cleaned re-used for as many as half a million gallons each!

This same equivalent in bottled water equals 1,250,000 bottles spent PER DAY!! The raw cost, ( \$1/bottle) and associated cost of the current campaign are certainly not sustainable nor acceptable. Have you ever tried to shower with a bottle of water?

Please see the Flint water test results attached. A photo of one that was being installed in a Flint shelter is also attached. The two samples in the other photos are from Michigan Works!, just down the street from your Office, before and after purifying.

Our website is: [www.merlinecosolutions.com](http://www.merlinecosolutions.com)<<http://www.merlinecosolutions.com>>

We are currently working on getting one or two installed at St. Mary's Church currently servicing the bottle distribution, homeless shelter and Michael's Soup Kitchen. This will make an immediate contribution and difference. We did this with funds from GoFundMe site and contributions! (see attached). By the time we get something going with you, you will have their support as we took their water samples yesterday and they are being tested today. Deacon Paul is our contact there. We are currently attempting to help Dr. Mona as well----

FYI—Stanford University Medical Staff, Dr. Weiss, has endorsed this unit and science and Michigan State Chemistry and Biology Labs and Students will be monitoring the units we install to safeguard the residents and process. National Testing Labs have been the Lab we are using to date., (see attached).

I can be reached and will come demonstrate and show off our unit and results whenever you have time – if you are inclined to help us.

Thanks for the time--- and your awareness--- and focus on the solution—

Sincerely,

Joseph S. Novitsky, AIA

Merlin Eco Solutions

O (248) 433-2030

M (586) 995-2170

[Joe@JSN-AIA.com](mailto:Joe@JSN-AIA.com)<<mailto:Joe@JSN-AIA.com>>

Skype: JoeN-AIA

---

[Avast logo]<<http://www.avast.com/>>

This email has been checked for viruses by Avast antivirus software.  
[www.avast.com](http://www.avast.com/)<<http://www.avast.com/>>

----- Forwarded message -----

From: Charles Chervenka <[cjchervenka@gmail.com](mailto:cjchervenka@gmail.com)<<mailto:cjchervenka@gmail.com>>>  
To: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)<<mailto:joe@jsn-aia.com>>>  
Cc:



Date: Tue, 12 Jan 2016 20:36:17 -0500

Subject: Fwd: Lynn posted an update on "Water Purifier for Mission of Hope"

Here's the site for funding. Just click on it.

To get the test data google Merlin Eco Solutions and then click on "test results" at the top of the page.

CJC

----- Forwarded message -----

From: Lynn via GoFundMe <[messages@gofundme.com](mailto:messages@gofundme.com)<<mailto:messages@gofundme.com>>>

Date: Tue, Jan 12, 2016 at 9:56 AM

Subject: Lynn posted an update on "Water Purifier for Mission of Hope"

To: [cjchervenka@gmail.com](mailto:cjchervenka@gmail.com)<<mailto:cjchervenka@gmail.com>>

Hi Charles A new update has been posted to Water Purifier for Mission of Hope Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't nee...

[<https://febc376daf6131a28181-3721cc30b0d63259b2211381d1431a50.ssl.cf1.rackcdn.com/logo-email-v5@2x.png>]

Charles, I posted an update on

Water Purifier for Mission of Hope

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBR0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVfVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQULOX2dtYWlsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBR0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVfVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQULOX2dtYWlsLmNvbTs%3D)>

Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't nee...

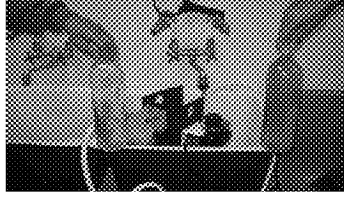
#### View Campaign

<[http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBR0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Deta\\_button%26utm\\_campaign%3Dupd\\_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVfVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQULOX2dtYWlsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBR0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Deta_button%26utm_campaign%3Dupd_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUEIEXzExMzM7MXw3NzY2NjM6UVVfVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQULOX2dtYWlsLmNvbTs%3D)>

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**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166

(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349706****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw, Tap Water**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	1.20*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	34.0	1	1/19/2016 10:30	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	5.000*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	9.100*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	0.850*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	10.00	1	1/19/2016 10:30	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.280*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 10:30	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.018	1	1/19/2016 10:30	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	2.6	1	1/19/2016 10:30	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016

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# National Testing Laboratories, Ltd

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## ANALYTICAL REPORTS

SAMPLE CODE: 349706

1/22/2016

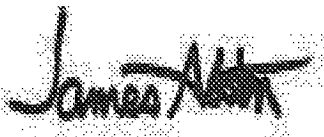
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	15	1	1/19/2016 10:30	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.520	1	1/19/2016 10:30	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**National Testing Laboratories, Ltd**

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(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349707****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw. Filtered through Purifier

**Source City:** Flint

**Source State:** MI

**Date/Time Received:** 1/19/2016 15:00

**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	ND	1	1/19/2016 10:30		1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30		1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	0.002	1	1/19/2016 10:30		1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	2.2	1	1/19/2016 10:30		1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30		1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	ND	1	1/19/2016 10:30		1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	7.10	1	1/19/2016 10:30		1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	1	1/19/2016 10:30		1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.006	1	1/19/2016 10:30		1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	ND	1	1/19/2016 10:30		1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016

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## ANALYTICAL REPORTS

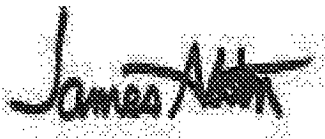
SAMPLE CODE: 349707

1/22/2016

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	32	1	1/19/2016 10:30		1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166

(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349708****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** Flint River Water (Flint River - Downtown)**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	0.12	1	1/19/2016 11:00	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	79.0	1	1/19/2016 11:00	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	0.002	1	1/19/2016 11:00	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	0.280	1	1/19/2016 11:00	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	28.00	1	1/19/2016 11:00	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.032	1	1/19/2016 11:00	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 11:00	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	3.3	1	1/19/2016 11:00	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016

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## ANALYTICAL REPORTS

SAMPLE CODE: 349708

1/22/2016

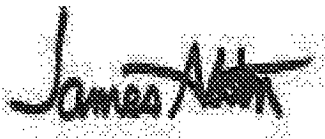
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	34	1	1/19/2016 11:00	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.007	1	1/19/2016 11:00	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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ANALYTICAL REPORTS

SAMPLE CODE: 350014

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #1  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	520*	A6 1	1/27/2016 13:53		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	66*	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350015

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #2 Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	2	A6	1	1/27/2016 13:53	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350016

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: Flint River (Raw) #3  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	390	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

- A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.  
Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350017

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: Flint River (Purified) #4  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.  
Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350018

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #5  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1200*	A6 1	1/27/2016 15:08		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350019

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #6 - Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	<1	1	1/27/2016 15:10		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 18, 2016 9:25 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: Vendor inquiries (2/2)  
**Attachments:** FW 4.zip; ATT00001.htm

Sent from my iPhone

Begin forwarded message:

**From:** "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
**To:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** FW: Vendor inquiries (2/2)

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

**From:** GOV Scheduling  
**Sent:** Monday, February 01, 2016 12:13 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint Water Help  
**Attachments:** Cover letter And Resume With Attachments for Gov Snyder 2016.pdf

---

**From:** Edward G. Wenz, Jr. [<mailto:edward@leadrenovatortraining.net>]  
**Sent:** Monday, February 01, 2016 10:29 AM  
**To:** GOV Scheduling <[GOVScheduling@michigan.gov](mailto:GOVScheduling@michigan.gov)>  
**Subject:** Flint Water Help

Feb 1, 2016

Governor Rick Snyder -

I am writing this letter and have attached a cover letter and resume for myself for your review. I would like to help you, City of Flint, Flint residents, & the State of Michigan with this Flint Lead Water issue.

I feel with my unique background, knowledge, & skill set I would be helpful in working to find the right resolution to the crisis. I feel with my resume, I will be able to assist in all areas of the work that needs to be done. And come up with and manage the proper implementation of a "fix" to this issue. There are alot of people helping you but I'm not sure with the knowledge that I possess from the construction, lead inspections/risk assessments, water testing, housing rehab, water & sewer infrastructure, and safety needs of the public and workers.

Please feel free to contact me at anytime.

Sincerely,

Ed Wenz

*Edward G. Wenz, Jr.*  
Contractors Training Institute, LLC  
Lead Renovator Training, LLC  
CTL - Consulting, Testing, & Inspections, LLC  
Michigan Builders Training & Builders Con-Ed  
248-698-6900 ~ Fax# 248-694-2001  
Construction/ Environmental Consulting & Education

# Edward G. Wenz, Jr.

February 1, 2016

To Governor Rick Snyder:

I am writing in letter to offer my services to help you, the State of Michigan, & the residents of Flint my professional services and background to help with this water situation that has impacted the community.

I am currently an State of Michigan and EPA Trainer for the new RRP Rule, a State of Michigan Trainer for Lead Abatement (Worker, Supervisor, Inspector, & Risk Assessor), State of Michigan Trainer for Asbestos (Supervisor & Inspector), and State of Michigan Trainer for builders / contractors handling pre-lic classes, con-ed, osha, mold, & asbestos awareness. I am the owner of a Michigan Proprietary School for Builders Courses. I also own CTI – Consulting, Testing, & Inspections, which is a firm that inspects home, write rehab specifications, lead lead inspections & lead risk assessments, asbestos surveys, federal programs management, and more.

I previously worked with City of Pontiac Federal Programs as the Federal Programs Construction Manager. I handled many areas for the Federal Programs including, demolition of homes for emergency & scheduled programs, water/sewer/electrical/gas disconnects with a survey of all to document for future use, homeowner rehab, NSP rehab, board up, lawn mowing & debris clean ups, spec writing, training of contractors for the city, RFP's for many programs, and much more.

I have previously worked for Macomb County Planning Dept where I was a Rehabilitation Specialist with the Macomb County Rehabilitation Program, and I feel that my background was well suited for this position. In my position as a Rehabilitation Specialist / Building Inspector, I inspected homes for code violations, HUD HQS, and deficiencies in the building, plumbing, hvac, and electrical trades. I also write up specifications and bid out new rehabilitation projects, as well as monitor, inspect work upon completion, and process billings for housing rehabilitation projects. I wrote the county rehab contractor manual and designed and wrote a new inspection report, along with making it a computer application.

In addition to my experience a contractor, trainer, and with Pontiac & Macomb County, I have a residential builder's license, I hold licenses with the State of Michigan as a Lead Supervisor and Lead Inspector / Risk Assessor, Asbestos Supervisor Contractor, Asbestos Inspector, Mold Remediation Specialist, Certified Indoor Air Quality Tech, and I have owned my own construction firm since 1995. The construction company I owned had 50 employees contracting work in new construction, remodeling, additions, fire restoration, demolition, & commercial contracting. My firm had contracted installation programs for Home Depot and Lowe's, along with commercial work in retail, commercial, and institutional buildings in various counties. I previously sat on the Zoning Board of Appeals for St. Clair Shores, and I also have worked with local attorneys as an expert witness for homeowners with legal matters regarding construction.

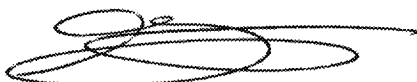
I would consider it a great opportunity to work for / with the State with my skills and unique background that very few have with the well rounded knowledge of all aspects of the issues and how to fix, bid, & manage for the Flint Water issue. I would like to provide any other details as to my background & knowledge and/or the fix as I see it at your request. I will make time to meet with you anytime.

Thank you for taking the time to consider my resume and application to help. I look forward to speaking with you or your department.

References:

- More available upon request

Thank you for your time and consideration,



Edward G. Wenz, Jr.  
Enclosure – Resume

# Edward G. Wenz, Jr.

---

## **EMPLOYMENT OBJECTIVE:**

To utilize my past experience & knowledge to gain personal growth & advancement in the construction field.

## **WORK EXPERIENCE:**

2010 – Present **Contractors Training Institute, LLC**

**Lead Renovator Training, LLC ~ Member / Trainer / Instructor**

**Michigan Builders Training, LLC & Builders Con-Ed, LLC**

**CTI – Consulting, Testing, & Inspections, LLC**

- Trainer for EPA Certified Renovator course, Mold Remediation, OSHA Safety, Asbestos
- Trainer of Lead Abatement Supervisor, Lead Inspector, Risk Assessor, Worker
- Trainer / Instructor for Michigan 60 Hr Builders Pre-Licensure Class & Builders Con-Ed
- Trainer for Asbestos Supervisor Contractor & Inspector Courses
- Built Online School for Contractor Training, Along with specialty websites & phone apps
- CTI-Consulting, Testing, & Inspections division of firm handling lead, asbestos, mold, & project management
  - Work for Macomb County Rehab program as rehab specialist, spec write, inspector
  - Work for Habitat For Humanity Macomb & Detroit as spec writer, rehab specialist, inspector, & lead inspector/lead risk assessor

1994 – Present **Winner Investment, Inc. ~ Owner**

- Established a property management company that currently owns and manages six (6) residential rental units throughout Macomb County. This firm owned and managed over 38 properties including commercials and residential apartments in previous years.
- Also, DBA Michigan Inspection Consultants, LLC; inspection & consulting services

May 2011 – Feb 2012 **City of Pontiac Federal Programs**

- Construction Manager / Rehab Specialist for Federal Programs HUD Grants & NSP
- Inspections of residential homes for code and write specification for all work, HOME Funds Implemented Programs for: Emergency Board-Up, Lawn ordinance mowing, Dumping clean-ups,
- Coordinated restart of NSP program for City to meet all HUD requirements, completed work that was on hold
- Demolition Program for Emergency & Scheduled demos, Coordinated all disconnects for water/sewer/electrical/gas for Michigan Land Bank NSP2 & CDBG. Along with surveying all water & sewer lines for mapping utilities for future use.

2006 – 2010 **Mini Dumpsters, LLC ~ Member**

- Established a waste & recycling firm = SOLD Firm
- Company was established with one dump trailer, when sold the business had 30 trailers, 18 roll off boxes, 3 trucks, 2 frontload trash trucks with revenue of \$500K per year

2003 – 2008 **~ Macomb County Rehabilitation Specialist I**

**Dept. of Planning & Economic Development**

- Performed functions of Rehabilitation Specialist / Building Inspector
- Managed rehabs for Lead Inspection & Lead Risk Assessments on work for county.
- Designed and wrote county housing inspection report
- Wrote county rehab program contractor manual
- Trained contractors in work practices, lead work, & processes

1998 – Present **At Home Services, LLC ~ Owner**

- Established general contracting company for residential work. *Inactive.*

2003 – 2007 **RW Builders, LLC ~ Member**

- Established building & development partnership firm, building and renovating homes in Macomb, Oakland, & Wayne Counties. Company was dissolved as of December 2007.
- Built new homes as in fill lots in various cities
- Rehabbed homes in various city for flips

## 1996 – 2003      **Winner Properties, Inc. ~ Owner**

- Established a full service construction company, diversifying in new home construction, commercial build outs, gymnasium wood floor installs, rehabilitation work, design & build, home inspections, insurance reconstruction, lead paint and asbestos abatement. Trained employees' in work practices, install techniques, lead safe work practices, work safety training, fire safety, hazard communication plan, respiratory program, etc...
- Winner Properties was the largest Home depot installation firm in Michigan and surrounding states handling 33 stores in Michigan for door installation program. Our firm also wrote the Anderson Window install program for Home Depot.
- Winner Properties also worked for Home Depots EXPO Design Center Stores. Our firm handled 3 stores for installation of kitchens, bathrooms, tile, stone, complete remodel work and design build work.
- Winner Properties was the largest Lowes installation firm handling 6 stores in Metro Detroit market. Our firm handled the door installation program for all 6 stores, handled the plumbing install program for 3 stores, and handled installation of tile & cabinets for 3 stores.

## **Other Work Experience:**

- Licensed Associate Realtor
- Truck driver to waste hauling firm - Went on to open my own business
- Owner of Towing & Recovery Service – Built & Established Company & then Sold company
- Owner of Spring & Suspension Shop – Built & Established Company & then Sold company
- Machine Repair Technician for Expert Machine Repair – Went out to open my own business

## **SKILLS, LICENSES, CERTIFICATIONS:**

- Licensed Builder
- Certified Lead Abatement Supervisor
- Certified Lead Inspector & Lead Risk Assessor
- Certified Licensed Asbestos Supervisor Contractor
- Certified Licensed Asbestos Inspector
- State of Michigan Certified Lead Trainer (Worker, Supervisor, Inspector, Risk Assessor)
- State of Michigan Certified Asbestos Trainer (Supervisor / Contractor & Inspector)
- US Environmental Protection Agency EPA RRP Trainer
- State of Michigan Certified Builders Pre-License Trainer
- State of Michigan Certified Real Estate Continuing Education Trainer
- State of Michigan Certified Insurance Adjuster Continuing Education Trainer
- Trainer in OSHA, Mold, Lead, Builders Initial & Con-Ed Classes, Asbestos
- Lifetime Approval By State of Michigan as Trainer for State Building Officials, Inspectors, & Plan Reviewers
- OSHA 10 Hour Trained
- Certified Mold Remediation Specialist
- Certified Home Inspector
- Former Realtor
- Driver License = CDL-A – endorsements C, CY, NT

## **VOLUNTEER AND COMMUNITY INVOLVEMENT:**

- Michigan HBA Remodelers Council = Presenter / Trainer
- Michigan Historical Preservation Network = Trainer / Consultant
- Member of St. Clair Shores Zoning Board of Appeals = *Previous*
- Compassionate Ministries / Building Construction Advisor = *Previous*
- Habitat For Humanity Macomb – Construction Supervisor = *Previous*
- Housing Opportunities for Macomb = *Previous*

## **Federal Programs Experience in HUD / NSP Work**

### **Macomb County Rehab Program – Rehabilitation Specialist**

- Inspect homes for rehabilitation program: building, plumbing, hvac, & electrical
- Inspect homes for both CDBG & HOME Funds for Code & HQS Standards
- Wrote the County Housing Rehabilitation Contractors Manual
- Updated the County Housing Rehab Manual
- SHPO Historical Section 1106 Clearances
- Environmental Reviews
- Wrote Specifications for work on homes – bring to code & emergency repairs
- Wrote specifications for lead abatement work / designed jobs
- Wrote estimates for all specifications on projects
- Ordered Lead Inspection & Risk Assessments as needed for projects
- Assessed projects for Lead Hazards and wrote specification for such work
- Met with homeowner to go thru work specifications and answered questions
- Inspected progress of work & final inspection of all work to meet specifications
- Completed final work on all homes and processed payments
- Wrote a complete rehab specification guide and put it into place for the County
- Designed a rehab tracking process and write up program for the County
- Ran projects for over 50 homes per year
- Projects ranged from rehabilitation, demo, and new build
- NSP Program: Worked to get basic acquisition and rehab outline established

### **City of Pontiac Federal Programs – Construction Manager**

- Wrote City Housing Rehabilitation Contractor Manual
- Updated / Revised the City Housing Rehab Manual
- Reviewed and worked for updating the Program Procurement Manual
- Wrote a complete rehab specification guide and put it into place for the City
- Designed a rehab tracking process and write up program for the City
- Organized and managed utility disconnects for demolition work. NSP & CDBG for City & NSP2 for MI Land Bank
- Worked with city on all water & sewer disconnects to be located and documented
- Organized and administered RFP's for: Rehab Contractors, Demo Contractors, NSP Developers, Realtor Services, Appraiser Services, Board Up Contractors, Lawn & Debris Clean-Up Contractors
- Bid Projects: Emergency Board Up Program, Lawn Mowing & Debris Clean Up Program, Rehab Program, Emergency Demo Program, 2012 Winter Demo Program, Asbestos Inspections, Lead Inspection & Risk Assessment Services
- Signed contract for Board Up Program & Managed over 350+ homes for board up
- Signed contract for Lawn & Debris Clean Up with 84 homes mowed, 1600 yards of debris removed
- Signed contract for Asbestos Inspections and administered over 200 sites
- Signed contract for Lead Inspection & Risk Assessment Services
- Inspected and wrote specs for 14 homes to satisfy HUD findings as a requirement to meet repairs for HUD
- Signed contracts for rehabilitation projects to repair homes required by HUD to clear findings – 14 sites
- Wrote Specs & Bid Emergency Demo Program; signed contracts with 6 contractors for work – demolished 20 homes in 10 days, completed work of 60 homes in 30 days
- Wrote Specs for 2012 Winter Demo Program – Pre-Bid Meeting held on 1/20 with 26 contractors, project is 150+
- Wrote / Revised Energy Upgrade specification for Lighthouse Path Bldg- Commercial Site
- Helped manage all SHPO applications for Historical Section 1106 Clearances on: Rehab & Demo work
- Worked with SHPO to add additional products to be listed as approved materials by State Architect to help have better specifications for rehab of homes.

- NSP Program:
  - Administration for: Acquisition Rehab, Demo, New Build
  - Managed & Signed for sale of properties for City to Developer
  - Administered & Managed all utility retirements / disconnect for Pontiac & Michigan land Bank
  - Revised specifications for NSP Developers to establish higher specifications = expectations
  - Worked to modify and help contractors get NSP 1 Program work done as the system was on hold
  - NSP Developers were guided to get projects back on track and now have done 19 homes in 6 months
  - Pontiac was on NSP slow spending list and now Pontiac is one of S/E Michigan top producers for HUD
  - City of Pontiac became top producing NSP Community in the last 6 months since Ed managed construction processes
  - Managed a huge Historical case and got clearance from SHPO in 30 minutes – 224 Ottawa, Pontiac
  - Managed Historical Sec 1106 Clearances for homes on NSP Program
  - Organized and managed RFP for Rehab Contractors for NSP 3 Program
  - Organized and managed RFP for Realtor Services for NSP Program
  - Wrote and managed RFP for Appraisal Services for NSP Program & sale of CDBG Property
  - Wrote & Bid out Specs for Alarm Systems on all NSP homes – Signed deal for developers
  
- CDBG & HOME Funds
  - Inspect homes for both CDBG, HOME Funds – Code & HQS Standards
  - SHPO Historical Section 1106 Clearances
  - Wrote specifications for work on homes – bring to code & emergency repairs
  - Wrote estimates for all specifications on projects
  - Ordered Lead Inspection & Risk Assessments as needed for projects
  - Met with homeowner to go thru work specifications answered questions
  - Inspected progress for work & final inspection of all work to meet specifications
  - Completed final work on all homes and processed payments



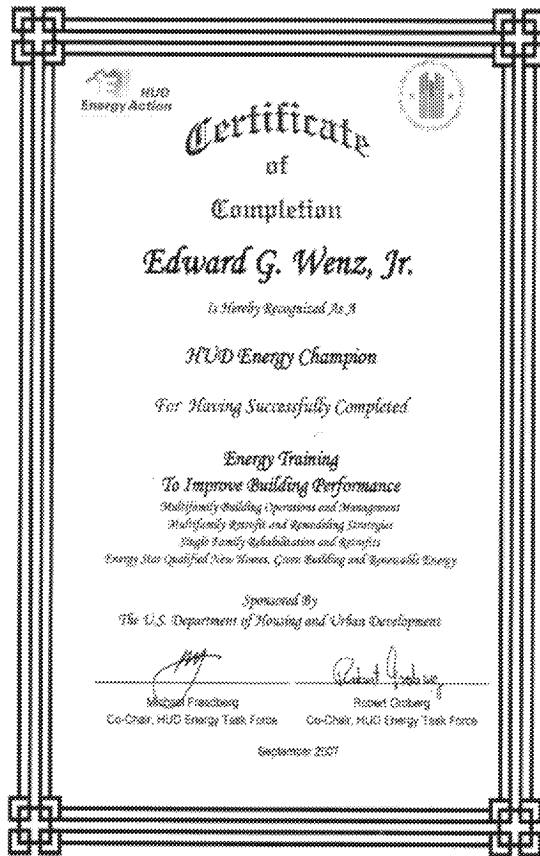
## Attachments – A

- Copy of Michigan Builders License

ROCK SRYOER GOVERNOR	STATE OF MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS CORPORATIONS, SECURITIES & COMMERCIAL LICENSING BUREAU	L245595
RESIDENTIAL BUILDER LICENSE		
EDWARD GILBERT WENZ, JR 8756 TRENTON DR WHITE LAKE MI 48386		
PERMANENT I.D. NO. 2101186904	EXPIRATION DATE 05/31/2017	AUDIT NO 2801332
THIS DOCUMENT IS ONLY VALID UNDER THE LAWS OF THE STATE OF MICHIGAN		

ROCK SRYOER GOVERNOR	STATE OF MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS CORPORATIONS, SECURITIES & COMMERCIAL LICENSING BUREAU	L231721
RESIDENTIAL BUILDER COMPANY LICENSE		
- O. O. - EDWARD GILBERT WENZ, JR INDV# 2101186904		
WINNER INVESTMENT INC DBA/ MICHIGAN INSPECTION CONSULTANTS 8756 TRENTON DR WHITE LAKE MI 48386		
PERMANENT I.D. NO. 2102185620	EXPIRATION DATE 05/31/2017	AUDIT NO 2789605
THIS DOCUMENT IS ONLY VALID UNDER THE LAWS OF THE STATE OF MICHIGAN		

## Attachment ~ B: Additional Training Certificates



**CUSTOMER TRAINING**

**Radiation Safety and Operation of Niton XRF Analyzers**

This is to certify that  
**Edward Wenz**  
has successfully completed the one day Thermo Fisher Scientific Niton Analyzer Manufacturer's Training Course. The topics of this course include radiation safety, monitoring, device operation, and machine maintenance of the Niton XRF Analyzer.

(CIH's - The ABIH Awards 1 CM point, approval # 08-354)

Course date: May 5, 2011  
Location: Romulus, MI  
Certificate Number: 15:4700380000017rVh0

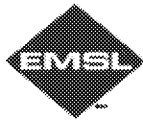
*Sophie Ling*  
Sophie Ling  
Radiation Safety Training Coordinator

*James Blute*  
James Blute, CHP  
Manager of Health and Safety

Thermo SCIENTIFIC



## Attachment ~ B: Additional Training Certificates



### EMSL ANALYTICAL, INC.

Certifies that

**Edward Wenz**

Has Completed Training In

**Mold, Indoor Air Quality and IH Sampling**

EMSL Certificate No. 70016695

Course Date: 98/11/2015

Granted: 98/11/2015

Sponsored by:

EMSL Analytical, Inc.  
200 Route 130 North  
Cinnaminson, NJ 08077  
Phone: (800) 220-3675  
Fax: (856) 786-5875  
[www.emsl.com](http://www.emsl.com)

**Jason Dobranic, Ph.D.**

Vice President of Microbiology and Life Sciences

Environmental, Mold, Bacteria, IAQ, Asbestos, Lead, Forensic and Materials Testing Since 1981



### EMSL ANALYTICAL, INC.

#### Credits and Continuing Education

Indoor Air Quality/Industrial Hygiene Workshop

on

8/27/15

ABIH-Compliant  
ACAC - 8.0 Credits  
BOMI - 8.0 Credits  
FL DBPR - 7 Credits  
HCRC - 1.0 Credit  
Inter NACHI - 8.0 Credits  
NAHI - 8.0 Credits  
ASHI - 8.5 Credits

CRBOH - 1 maintenance point  
NYS Dept of State Home Inspectors  
CRBOH - 1 MP  
NJ Site Remediation Professional Licensing  
Board - 4 TCEs  
NEHA - 6.5 CEC's  
TN Home Inspector Licensing Board - 8 hours

CAHPI  
OAH - 7 CEUs  
CAHPI/BC - 7 MRCs  
CAHPI Alberta - 7 MRCs  
Approved by Florida State  
DBPR 7 Credit Hours

Certificate # 70016695

Issued to: Edward Wenz

Environmental, Mold, Bacteria, IAQ, Asbestos, Lead, Forensic and Materials Testing Since 1981

## Attachment ~ C: Additional Certificates

United States Environmental Protection Agency

This is to certify that

Lead Renovation Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices under EPA Part 402 in the following jurisdiction:

Renovator: Professional (Specialty)

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: October 27, 2015

NOT EPCB-100000-1-010  
Accreditation # OCT 14 2015  
Issued On

*Tony Bentley, acting for*  
State Risk, Chief  
Chemicals Management Branch

United States Environmental Protection Agency

This is to certify that

Lead Renovation Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices under EPA Part 402 in the following jurisdiction:

Renovator: Professional (General)

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: JUL 11, 2015

NOT EPCB-100000-1-010  
Accreditation # JUL 07 2015  
Issued On

*Maria Klemm*  
State Risk, Chief  
Chemicals Management Branch

This is to attest that

has satisfactorily met the requirements of the Michigan Lead Abatement Act of 1995, and is hereby accredited as a

**Lead Renovator Training**

LEAD TRAINING COURSE PROVIDER

TCP number T-0049

This accreditation entitles the named persons to the rights and privileges afforded by the Act, as well as the authority to offer and provide the following training courses leading to certification of individuals engaged in regulated lead-based paint activities in the State of Michigan until August 31, 2016

Worker Initial	Worker Refresher	Supervision Initial	Supervision Refresher	Inspector Initial
Inspector Refresher	Risk Assessor Initial	Risk Assessor Refresher		

**MDHHS** Michigan Department of Health and Human Services

*Michael J. Brown*  
Manager, EPH

August 21, 2015  
Date

Authority: P.A. 380 of 1975, as amended

STATE OF MICHIGAN L263570  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
CORPORATIONS, SECURITIES & COMMERCIAL LICENSING BUREAU  
PROPRIETARY SCHOOL  
LICENSE

MICHIGAN BUILDERS TRAINING, LLC  
2525 AVON INDUSTRIAL DRIVE  
ROCHESTER HILLS MI 48309

PCB-000001-1-010  
8604000877

10/15/2015  
06/30/2015

2015-08  
2309466

For information only - 2015-08  
2015-08-06 of the State of Michigan

Sponsor Number 744307 Issue Date 11/25/2015 Expiration Date 12/31/2015

State of Michigan  
Department of Licensing and Regulatory Affairs

Michigan Builders Training, LLC

has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1995, as amended, and Section 206 of Title II of the Toxic Substances Control Act to provide the following courses

Contractor/Supervisor Initial\* Inspector Refresher\*  
Contractor/Supervisor Refresher\*

1312

United States Environmental Protection Agency

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Issued On

*Tony Bentley, acting for*  
State Risk, Chief  
Chemicals Management Branch

## Attachments – D:

- Copy of Environmental Licenses

Michigan  
Department of  
Community  
Health

**Edward G. Wenz Jr.**  
**Lead Inspector/Risk Assessor**  
**Lead Supervisor**

Cert. number **P-011130**

Annual fee due by **March 31, 2016**

*Appropriate refresher training and exam must be taken to renew this certification before March 31, 2016*

Healthy Homes Section

State of Michigan  
Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Inspector**

**Edward G. Wenz, Jr.**  
8756 Trenton Drive  
White Lake, MI 48386

Accreditation Number **A42527** Expiration Date **04/05/2016** DOB: **01/08/1966**

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1986, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered **114769**

State of Michigan  
Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Contractor/Supervisor**

**Edward G. Wenz, Jr.**  
8756 Trenton Drive  
White Lake, MI 48386

Accreditation Number **A42527** Expiration Date **04/05/2016** DOB: **01/08/1966**

This individual has satisfactorily met or exceeded the requirements of Section 205 of the Toxic Substances Control Act to be accredited in the above discipline.

Accreditation card is not valid if altered **114770**

**OSHA** Occupational Safety and Health Administration

21-004444959

This card acknowledges that the recipient has successfully completed a 10-hour Occupational Safety and Health Training Course in **Construction Safety and Health**

**EDWARD WENZ, JR.**

**Bryan Renaud** 06/12/2013

(Trainer name – print or type) (Course end date)

Michigan Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety and Health Administration  
Consultation Education and Training Division

This is to recognize that

**EDWARD WENZ, JR.**

Has completed a 10-Hour MIOSHA course in **CONSTRUCTION SAFETY AND HEALTH**

**Bryan Renaud** Approval # **AP 147** 6/12/13 (Instructor) (Date)

**LARA**

**MIOSHA Training Institute**

**MIOSHA** Macomb Community College

The MIOSHA Training Institute takes pleasure in presenting this **CERTIFICATE OF ATTENDANCE** to

**EDWARD WENZ, JR.**

for your active participation in **MIOSHA Construction 10-Hour Course**

awarding 1 CEU / 10 Contact Hours

**JUNE 12, 2013**

**PATRICIA DUPRESNE** **BRYAN RENAUD**  
Coordinator, MIOSHA Training Institute Director, MIOSHA Training Institute



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
BUREAU OF CONSTRUCTION CODES  
IRVIN J. POKE  
DIRECTOR

STEVEN H. HILFINGER  
DIRECTOR

April 2, 2012

**\*\*Lifetime Instructor Approval\*\***

Mr. Edward G. Wenz, Jr.  
8756 Trenton Drive  
White Lake, MI 48386

Dear Mr. Wenz:

Your application to renew your Instructor Approval has been processed by the Bureau of Construction Codes.

Pending review by the Construction Code Commission, the Bureau of Construction Codes has been granted permission to renew your approval under the following conditions:

1. Instructor standards as defined in the Rules for Act 54, 1986 are maintained.
2. Approval is granted indefinitely for the following categories: Administration, Communication, Plan Review, and Building (Specialty and Technical specific to lead, asbestos and mold related subjects).
3. The commission may withdraw the approval of an instructor when the approval was issued in error or was issued on the basis of incorrect information or when the instructor is found to be in violation of the rules.

The standards set forth in the rules for Act 54, 1986, state that program providers must "establish permanent records of student activities, including course title, and student attendance." Instructors have the responsibility for certifying attendance records. All participants must attend the entire program to receive credit.

**PLEASE NOTE:** Training programs must be approved by the Bureau of Construction Codes before registrants will receive their credited attendance hours. Before conducting training programs, a completed Education and Training Programs Approval Application (Form BCC-1052) must be submitted and approved by the Bureau of Construction Codes. Our attendance form can be found on our website at [www.michigan.gov](http://www.michigan.gov) under Forms then Building Division.

Instructor Identification Number: 2019

Sincerely,

*Kary L. Dare*

Kary L. Dare  
Building Division

KLD/ld

*Providing for Michigan's Safety in the Built Environment*

LARA is an equal opportunity employer  
Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.  
P.O. BOX 30254 • LANSING, MICHIGAN 48908  
[www.michigan.gov/bcc](http://www.michigan.gov/bcc) • Telephone (517) 241-8302 • Fax (517) 241-9570



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
LANSING

STEVE ARWOOD  
DIRECTOR

February 15, 2013

Michigan Builders Training, LLC  
Edward G. Wenz Jr.  
2230 Avon Industrial Dr  
Rochester Hills, MI 48309

Dear Mr. Wenz:

RE: **Sponsor #480**

Your application as a sponsor for the 2013-2015 Calendar Years for real estate nondistance-learning continuing education has been approved. This approval begins on February 14, 2013 and expires on December 31, 2015. **The sponsor approval number above is important and must be referenced in ALL correspondence with the Department.** The following course(s) have been approved:

Course Name	Hours	"L" Course Number
Combo Lead, Asbestos, Mold Awareness	4hrs	M1474
OSHA Fall Protection	2hrs	M1475
EPA Certified Lead Renovator	4hrs	M1476
Mold Awareness -- What you should know	2hrs	M1477
OSHA Lead Awareness	2hrs	M1479
Asbestos Awareness	2hrs	M1478

This approval includes Edward Wenz as instructor(s).

A Schedule and Geographic Location of Classes BCS/LRE-004(01/09) must be submitted before you submit your verification of attendance. Sponsors must submit verification of attendance no later than 5 days after the completion of the course, per Rule 604(8).

Electronic filing of your continuing education course attendance roster file must be a tab delimited text file or an excel file that can be exported from any database you have.

You can find the Schedule and Geographic Location of Classes and Verification of Attendance excel spreadsheet on our website at [www.michigan.gov/bctestesting](http://www.michigan.gov/bctestesting) under the forms drop down menu. If you have any questions, please contact me at (517) 241-9231. Thank you for your cooperation.

LARA is an equal opportunity employer/program.  
Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

BUREAU OF COMMERCIAL SERVICES  
P.O. BOX 30018 • LANSING, MICHIGAN 48909  
[www.michigan.gov/lara](http://www.michigan.gov/lara)

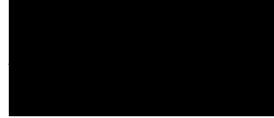
FIS 414 (12/11) Department of Insurance and Financial Services

**Certificate Of Registration For A Continuing  
Education Program Of Study**

PSI  
Michigan CE  
3210 E. Tropicana  
Las Vegas, NV 89121

September 18, 2013

MICHIGAN BUILDERS TRAINING, LLC



Edward Wenz:

Pursuant to Section 1204a(1) to 1204c(6) of the Insurance Code of 1956, as amended, MCLA 500.1204a(1) to 500.1204c(6), the Agent Education Advisory Council or its designee has reviewed the course materials, curriculum, and instructor credentials submitted and recommends to the Director's representative that this program of study be registered:

Course Name: **UNDERSTANDING THE HAZARDS OF HOUSING - COMBO LEAD, ASBESTOS, & M**

Program of Study: **Property & Casualty**

Effective Date: **09-18-2013**

Number of Approved Hours: **3**

Provider Number: **0979**

Life/Health **0**

Property/Casualty **3**

Presentation Method: **Classroom**

Course Number: **63228**

National Designation Program: **No**

Expiration Date: **09-18-2015**

By the granting of this Certificate of Registration, the Director's representative approves the recommendation. The Director may, after Notice and Opportunity for a Hearing, withdraw the registration of a program of study, which does not maintain standards as determined by the Director for the protection of the public. Sales/Marketing hours = 0.

If you disagree with our decision, you may appeal by providing 2 copies of the requested information within 30 days of the date of this letter without any additional fees. However, if you appeal our decision, you must return this document and you may not offer this course until a final disposition is granted.

If you need to contact PSI, please email [MIINSURANCE@PSIEXAMS.COM](mailto:MIINSURANCE@PSIEXAMS.COM).

Sincerely,

PSI Continuing Education Unit



Michigan Department of Insurance and Financial Services

DIFS is an equal opportunity employer/program.

Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

Visit DIFS online at: [www.michigan.gov/difs](http://www.michigan.gov/difs) Phone DIFS toll-free at: 877-999-6442



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**From:** Stoken, Laura (GOV)  
**Sent:** Monday, February 01, 2016 2:39 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Disaster Recovery Resilience Program

For your determination

---

**From:** Norman Stoerr [<mailto:nstoerr@aidrc.com>]  
**Sent:** Monday, February 01, 2016 2:36 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Cc:** Norman Stoerr <[nstoerr@aidrc.com](mailto:nstoerr@aidrc.com)>  
**Subject:** Disaster Recovery Resilience Program

Good afternoon Lt. Governor Calley,

I'm contacting you to provide you information concerning Adjusters International's Disaster Recovery Resiliency Program.

In 2010, The Department of Homeland Security (DHS) identified resiliency as a national priority. DHS intended to reduce the risk to critical infrastructure, public health and safety by fostering development of preparedness capabilities able to recover from naturally or man-made disasters to the nation's states and cities. Presidential Policy Directives 8 and 21 fully endorse this high level initiative.

Adjusters International (AI) can provide you a Disaster Recovery Resilience Program. Our web-based interoperable, multiple activation program, will assist the state in building a pro-active, readiness, response, recovery, and mitigations program for your state and counties.

AI's program can provide you a detailed risk analysis of the state's resources. Our program will also monitor your resource allocation of personnel, equipment and facilities not only on a daily basis, but also during an emergency situation or activation. The program provides this support using its GIS and real time situational analysis capability. AI's Disaster Recovery Resiliency Program will also guide a municipality, city or county from the initiation of an emergency response, through the closeout of a disaster declaration.

At your convenience, we would like the opportunity to speak with you and or members of your staff to further explain the Disaster Recovery Resilience Program.

Please contact me on the number or e-mail listed below to schedule a GoToMeeting. We will show you some features and further explain the benefits of our program.

Thank you very much sir,

*Norman T. Stoerr  
Disaster Recovery Resiliency Program  
Adjusters International DRC  
125 Wolf Road-Suite 214  
Albany, New York 12205  
Cell: 716-432-9414*

*E-mail: [nstoerr@aidrc.com](mailto:nstoerr@aidrc.com)*



C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

January 29, 2016

Honorable Rick Snyder, Governor Michigan

Honorable Dr. Karen Weaver, Mayor

Honorable Elder Patrick W. Sanders, Pastor New Jerusalem Full Gospel Baptist Church

Greetings,

One of the most forgotten tools in optimizing effective public health strategies is Risk Communications. C. Edwards Concepts Public Health and Development Consulting LLC a nationally recognized leader in comprehensive Public Health consultation is fully qualified and experienced in multiple areas of Risk Communication Disease Intervention and Community Health. Since 2002 we have provided design, development and implementation services for local state and federal governments, non-governmental organizations, and community based organizations, and academic institutions. I am writing in hopes of securing an opportunity to discuss the provision of services for Public Health Consulting including but not limited to Education Awareness and Risk Reduction relative to lead contaminated water in Flint Michigan.

In the area of Risk Communication we have developed epidemiology influenced programming for disease intervention, risk assessment and risk reduction counseling testing referral and health services navigation.

From a strategic platform of Outreach and Engagement we have affected communities of color and beyond with measurable health outcome improvements by employing culturally and population sensitive strategies for Community Planning Health Promotions and Health Protection for successfully implementing Community Health initiatives.

In the area of Environmental Health our founding director is an Environmental Health Policy major and graduate of Tulane University School of Public Health and Tropical Medicine. In addition to her own studies she has also served as a Visiting Professor at the University of Nevada Las Vegas in the Division of Environmental Studies instructing Environmental Impact Analysis, Survey of the Environment, and Environmental Science. This serves as the foundation for both the experience and the expertise we have gained in the promotion of Health Safety and Environmental practices. We have developed and implemented worker safety training for Environmental Remediation projects licensed in the states of Louisiana and Nevada and in October 2013 entered into a three year contract with the University of Texas at Arlington Environmental Training Institute for the development of their curriculum for their Environmental Toxicology and Health Impacts course.

SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

The exceptional capacity and breadth of C. Edwards Concepts' skills and professional acumen is well documented. We are committed, well trained, and well able to help diverse stakeholders with varied interest. We have a working knowledge of the Clean Water Act and the Lead and Copper Rule which strengthens our ability to assess environmental and social risk factors in health related and environmental decision making processes.

Please afford me an opportunity to further discuss our organizations ability to serve as a valued resource for the City of Flint as it works to recover from this Public Health crisis. I will contact you on or before Tuesday February 2, 2016 as a follow up to this correspondence. Should you wish to reach me prior to that time you are welcome to do so at 318.519.4802 or via email: [charletteedwards@gmail.com](mailto:charletteedwards@gmail.com). Thanks so much for your consideration I look forward to speaking with you and serving your community. With kind regards I am ...

Committed to Health and Wellness

*Charlette Edwards*

Charlette Edwards, MSPH

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

CHARLETTE EDWARDS, MSPH  
Shreveport, LA 71107 [Charletteedwards@gmail.com](mailto:Charletteedwards@gmail.com) 318.519.4802

**Summary**

For more than 25 years, I have been successfully involved in the work of problem resolution. Via Administrative remedy, I have worked with agencies under the auspices of the federal government applying rules codified by the Codes of Federal Regulation and Revised Statutes from various states. To this end, I have attained an uncanny ability to establish, develop and maintain outstanding rapports with persons from various backgrounds and diverse cultures. This ability is only surpassed by my never-ending commitment to (1). Facilitate the accomplishments of my organizations described goals (2). Provide assistance in designing strategic plans of action to satisfy determined objectives (3). Utilize and employ, clear, decisive, leadership abilities needed to complete specific task or multifaceted problems.

**Education**

**Tulane University**, School of Public Health and Tropical Medicine  
New Orleans, LA

**Master's of Science in Public Health**, 2000  
Environmental Health Sciences Major

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BAFB, LA  
**Bachelor of Science**, 1999  
Psychology Major

**Southern University**  
Shreveport, LA  
**Associates of Science**, 1990  
Paralegal Studies Major

**Relevant Coursework:** Administrative Policy; Environmental Management; Regulatory Processes; Communications and Human Relations; Industrial and Organizational Psychology; Professional Speaking; Advanced Composition and Technical Writing

**Relevant Experience:**

**National Science Foundation – Wiley College**  
Marshall, Texas  
**STEM Project Manager**

- Provide technical guidance and assistance relative to scientific program planning

SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

- Develop operational plans for creation, implementation and evaluation of program activities
- Serve as liaison to the community, academia, and governmental agencies representing STEM program

**University of Texas - *Environmental Training Institute***

Arlington, Texas

**Environmental Consultant**

- Curriculum Development
- Instructional Design
- Serve as subject matter expert in Environmental Toxicology and Health Impacts

**University of Nevada Las Vegas**

Las Vegas, Nevada

**Visiting Professor**

- Provide instruction in Environmental Sciences
- Develop course syllabi and supporting course materials
- Evaluate student mastery of skills and competencies required by course outcomes.

**James Hill and Associates**

Atlanta, Georgia

**Contractual Consultant**

- Developed Health and Safety Training Course for Construction Workers
- Delivered OSHA Specific training for workers to ensure compliance with OSHA standards
- Presented EPA Awareness and Compliance Review Sessions for both workers and supervisors

**U.S. Department of Housing and Urban Development**

Shreveport, Louisiana

**Contractual Consultant**

- Performed audits and compliance reviews for agencies under the direction of the U.S. Department of Housing and Urban Development
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**Mayor's Office of Environmental Affairs**

New Orleans, Louisiana

**Environmental Policy Intern**

- Designed municipal efforts to network with community and its' leaders
- Implemented public awareness programs relative to emissions, recycling and household chemicals
- Developed of medical monitoring model and program for the city of New Orleans

SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

Our Consulting Team

**Behavioral Health**

Tomeka Thomas Anderson, M.S., LAC, CCS Licensed Addiction Counseling, Clinical Counseling, Women's Issues

Ramona Jones, LPC, LAC, CCS – Greif and Loss, Licensed Addictions Counseling, Clinical Counseling, Family Dynamics

Raigina Preston Hill – PSNP – Psychiatric Nursing

**Community Planning**

Keith Bush, B.A., CPCPP, - Mass Communications, Community Planning, Community Mobilization, Melanie Edwards, CCP, CHO,- Resource Development, Community Mobilization, Outreach Coordination

Allen Preston, CHO, CPP, - Community Planning, Community Mobilization, Outreach Coordination

**Human Services Coordination**

Debra Maiden Speed, M.A.,- Human Resources Development, Comprehensive Case Management

Laverne Payton, - Senior Care Coordinator, Senior Resource Development

**Primary Care**

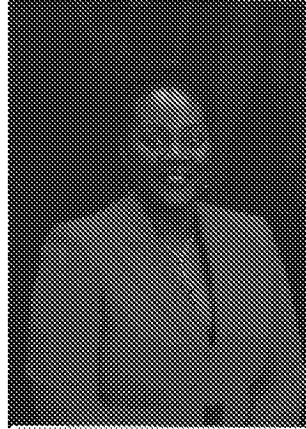
Carol Smith Peterson, B.S., R.N. – Nurse Care Manager

Rhonda Robinson, B.S., R.N, - Legal Nurse Consultant, Emergency Room and Oncology Nursing

Raigina Preston Hill, LRT, R.N., PSNP, - Respiratory Therapy, Nurse Practitioner

Allen Preston, DIS – Disease Intervention, Risk Assessment, Risk Reduction Counseling

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.



CONTACT:

CHARLETTE EDWARDS, MSPH

1545 LINE AVE. SUITE 211

SHREVEPORT, LOUISIANA 71101

318.519.4802

CHARLETTEEDWARDS@GMAIL.COM



---

**From:** Stoken, Laura (GOV)  
**Sent:** Monday, February 01, 2016 2:45 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Public Health Consulting  
**Attachments:** C Edwards Concepts Portfolio Dr. Karen Weaver.pdf

For your determination

**From:** Charlette Edwards [<mailto:charletteedwards@gmail.com>]  
**Sent:** Monday, February 01, 2016 1:15 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>; [mayor@cityofflint.com](mailto:mayor@cityofflint.com); [elidersanders@att.net](mailto:elidersanders@att.net)  
**Cc:** [saunder1@michigan.gov](mailto:saunder1@michigan.gov); Charlette Edwards <[charletteedwards@gmail.com](mailto:charletteedwards@gmail.com)>  
**Subject:** Public Health Consulting

Greetings,

With more than 25 years of professional experience spanning Politics, Administrative Law, and Public Health, I write you in hopes of securing an opportunity to serve you and your community through the provision of Public Health, Community Outreach and Risk Communications services.

Your consideration is greatly appreciated. Charlette Edwards

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HEALTH AND DEVELOPMENT CONSULTING LLC.

January 29, 2016

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Committed to Health and Wellness

*Charlette Edwards*

Charlette Edwards, MSPH

SHREVEPORT, LOUISIANA

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HEALTH AND DEVELOPMENT CONSULTING LLC.

CHARLETTE EDWARDS, MSPH



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SHREVEPORT, LOUISIANA

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Arlington, Texas

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**Environmental Policy Intern**

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SHREVEPORT, LOUISIANA

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

Our Consulting Team

**Behavioral Health**

Tomeka Thomas Anderson, M.S., LAC, CCS Licensed Addiction Counseling, Clinical Counseling, Women's Issues

Ramona Jones, LPC, LAC, CCS – Greif and Loss, Licensed Addictions Counseling, Clinical Counseling, Family Dynamics

Raigina Preston Hill – PSNP – Psychiatric Nursing

**Community Planning**

Keith Bush, B.A., CPCPP, - Mass Communications, Community Planning, Community Mobilization, Melanie Edwards, CCP, CHO,- Resource Development, Community Mobilization, Outreach Coordination

Allen Preston, CHO, CPP, - Community Planning, Community Mobilization, Outreach Coordination

**Human Services Coordination**

Debra Maiden Speed, M.A.,- Human Resources Development, Comprehensive Case Management

Laverne Payton, - Senior Care Coordinator, Senior Resource Development

**Primary Care**

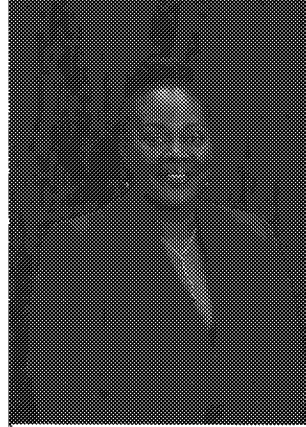
Carol Smith Peterson, B.S., R.N. – Nurse Care Manager

Rhonda Robinson, B.S., R.N, - Legal Nurse Consultant, Emergency Room and Oncology Nursing

Raigina Preston Hill, LRT, R.N., PSNP, - Respiratory Therapy, Nurse Practitioner

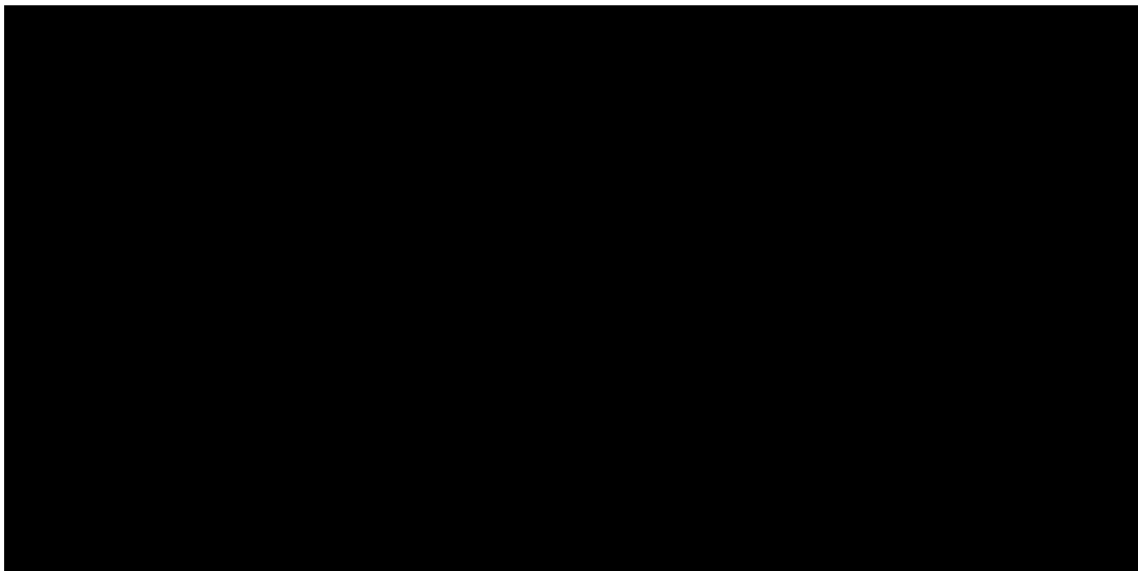
Allen Preston, DIS – Disease Intervention, Risk Assessment, Risk Reduction Counseling

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.



CONTACT:

CHARLETTE EDWARDS, MSPH



SHREVEPORT, LOUISIANA

---

**From:** Baird, Richard (GOV)  
**Sent:** Monday, February 01, 2016 11:10 PM  
**To:** Sachs, Tori (GOV); Creagh, Keith (DEQ)  
**Subject:** Fwd: Fw: Message from Dennis Cawthorne

These keep coming out of the woodwork. I wonder if we have/need someone from Keith's team separating the "wheat from the chaffe".

Rich

*Sent from my Verizon Wireless 4G LTE DROID*

----- Forwarded message -----

**From:** Dennis Cawthorne <[DCawthorne@kelley-cawthorne.com](mailto:DCawthorne@kelley-cawthorne.com)>  
**Date:** Feb 1, 2016 1:45 PM  
**Subject:** Fw: Message from Dennis Cawthorne  
**To:** "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>  
**Cc:** [rbaird003@hotmail.com](mailto:rbaird003@hotmail.com)

Rich:

I copied Vogel-Brown on our correspondence and here is their latest response. Note the second paragraph in which they again say their receiving a "Lab Report" would be helpful.

I presently have no vested interest in what Vogel-Brown is proposing but, from the outside, their potential ability to provide near term drinkable, clean water appears interesting and perhaps merits your team's interest, as well.

Dennis Cawthorne

---

**From:** Richard Brown <[rbrown@vogelandbrown.com](mailto:rbrown@vogelandbrown.com)>  
**Sent:** Saturday, January 30, 2016 5:22 PM  
**To:** Dennis Cawthorne  
**Subject:** RE: Message from Dennis Cawthorne

Dear Dennis,

This is great; now we need to come through. It sounds as though they've put a "Tiger Team" in place and just getting organized.



I have our engineers working on the concept that is focused on near term provision of drinkable, clean water. The lab report will ensure we're proposing the correct solution. There are several ways we can go about this, but I propose a Demo as a Proof of Concept to show that our system actually works.

We still have not been able to contact our large scale engineer/patent holder, but as soon as we do I'll let you know where we stand and a proposed schedule.

I'm also in contact with one of our associate contractors that does large scale epoxy coating of water pipes without have to remove or did them up. I should have more on them Monday.

Thanks for your support.

Richard Brown

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**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, February 02, 2016 8:39 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** Company

For your determination

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**From:** info [mailto:info@rcunique.com]  
**Sent:** Monday, February 01, 2016 8:02 PM  
**To:** Stoken, Laura (GOV) <Stokenl@michigan.gov>  
**Subject:** Re: Re: RE: Executive Office of the Governor

Dear Laura ,

I read online that the plumbers union were helping all the flint residents changing faucets and install filters .pls note that we can provide our equipment and technique support for free for flint residents ,but we will need the plumber union to do the cleaning process ,waiting for your reply .thanks

2016-02-01

---

**Best regards!**

**Melia Tang**

**19295 E .Walnut Dr.North #H**  
**City of Industry.Los Angeles.CA 91748**  
**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: [www.rcunique.com](http://www.rcunique.com)**  
**Email:info@rcunique.com**

---

发件人 : "info" <[info@rcunique.com](mailto:info@rcunique.com)>  
发送时间 : 2016-02-01 11:41  
主题 : Re: RE: Executive Office of the Governor  
收件人 : "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
抄送 :

Dear Laura ,

Thanks for your reply .please take a looking in our website .we are speciallize in clean water pipes for residents area .with our technology ,each single house will take around 2-3 hours to clean up all the pipes lines .no need any repipe or construction .right now we still serve Los Angeles .but if you need our help .we can certainly send someone to Flint city to help you .i think you are aware that the faucet filter won't be working so well if the residents still have dirty water pipes .they still can't get clean water for shower and other daily usage water as well .

please take a look in a website .and let me know how we can help .thanks

[www.rcunique.com](http://www.rcunique.com)

2016-02-01

**Best regards!**

**Melia Tang**

**19295 E .Walnut Dr.North #H**  
**City of Industry.Los Angeles.CA 91748**  
**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: [www.rcunique.com](http://www.rcunique.com)**  
**Email:info@rcunique.com**

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发件人 : "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>

发送时间 : 2016-02-01 11:31

主题 : RE: Executive Office of the Governor

收件人 : "info" <[info@rcunique.com](mailto:info@rcunique.com)>

抄送 :

Thank you Melia,

Please provide specific details so I can forward it to the appropriate person at the State Emergency Operations Center for review.

Thank you,

Laura

---

**From:** info [<mailto:info@rcunique.com>]

**Sent:** Monday, February 01, 2016 2:22 PM

**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>

**Subject:** Re: Executive Office of the Governor

Dear Laura,

Thanks for your reply ,the reason I am contacting you is that I think my company can help the governor with this issue in the final stage .for flint water,there are still few steps to solve the issue .first,you government need to provide clean water source ,second ,you will need to repipe or clean all those corroded water pipe lines .third stage ,we may be able to help with our technology .as we all know how long and how expensive it is gonna take for repiping for each house ,if the water pipes are not so corroded ,we are able to clean the water pipes for residents .in this way ,they will get your clean water .let me know how you think about it ,I am waiting for your further reply .thanks .

2016-02-01

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**Best regards!**

**Melia**

**19295 E .Walnut Dr.North #H**

**City of Industry.Los Angeles.CA 91748**

**Tel:626 964 6612**

**Fax:626 964 6609**

**Web: www.rcunique.com**

**Email:info@rcunique.com**

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**发件人 :** "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>

**发送时间 :** 2016-02-01 11:11

**主题 :** Executive Office of the Governor

**收件人 :** "Melia T" <[info@rcunique.com](mailto:info@rcunique.com)>

**抄送 :**

Dear Melia T,

Thank you for your recent correspondence sent to Governor Rick Snyder. As a member of Governor Snyder's staff, I am responding on his behalf.

The health and welfare of Flint residents is the top priority. Governor Snyder's focus is on getting residents the help they need and the response they deserve. He wants to ensure Flint residents have access to clean, safe drinking water. Safe water as well as filters are being delivered door to door and are also available at designated locations throughout the city.

The Governor created a bipartisan, independent task force to review all state, city and federal actions concerning Flint water and making recommendations for the future. We're focused at solving the immediate problems, and also addressing long-term needs. The Flint Water Interagency Coordinating Committee will bring together a wide range of experts to work on long-term solutions to the Flint water situation and ongoing public health concerns affecting residents.

Governor Snyder declared a state of emergency, requested federal assistance, and activated the Michigan National Guard. President Obama granted an emergency declaration, providing \$5 million for water, water filters, filter replacements and water test kits. Congress can approve additional funding. The Governor had also requested from the President a major disaster declaration, which was denied based on the legal requirement that under the Stafford Act disaster relief is available only for natural events, fires, floods, or explosions. The state is now appealing the disaster declaration denial.

The top priority of response efforts is to ensure residents have access to safe, clean drinking water. Residents should install filters to their taps to ensure they have immediate, ongoing access to safe water. It is important to follow installation and maintenance instructions for filters and replacement cartridges. There are five water resource centers, open seven days a week from 9 a.m. to 9 p.m. at Flint fire stations. There are water resource teams going door-to-door to ensure every resident has a water filter and additional water resources.

- If you want to donate or volunteer to help the people of Flint, visit: [www.helpforflint.com](http://www.helpforflint.com).

Since the Governor's emergency declaration we have distributed 207,055 cases of bottled water, nearly 37,342 filters, and 30,801 water testing kits. When installed and maintained properly, water filters remove 99 percent of lead in water. Residents are urged to use filtered water for drinking, food preparation, brushing teeth and watering pets. Unfiltered water may be used for bathing and cleaning.

For a Flint Water timeline, please visit [CLICK HERE](#).

Friday, January 29 Governor Snyder signed legislation bringing \$28 million to immediately help families in Flint with lead testing, treatment and other emergency services. The funding was part of a multi-point relief package the governor outlined last week during his state of the state address to the Michigan Legislature.

This is the second emergency supplemental funding bill allocated to assist the city of Flint this fiscal year. A previous \$9.3 million package was approved in October 2015 to reconnect Flint to the Detroit Water and Sewerage Department, provide filters and water testing to residents, aid in follow-up health services for children and assist with plumbing inspections at schools and health facilities.

House Bill 5220, sponsored by state Rep. Phil Phelps and approved unanimously in both the House and Senate will help ensure Flint residents have access to safe, clean drinking water while helping to do the following:

- Supply free bottled water, faucet filters, and testing kits for Flint residents;
- Put nine nurses in local schools to monitor student health and well-being;
- Provide better nutrition for students and infants through WIC and in-school nutrition programs;
- Replace fixtures in schools, daycares, nursing homes and hospitals;
- Provide for an infrastructure study using independent experts;
- Treat any children who have high lead levels in the blood, using diagnostic testing, nurse visits and environmental assessments in the home;
- Provide additional community education opportunities within the Genesee County Health Department;
- Compensate the Michigan National Guard's work to support water distribution;
- Assist with home lead abatement costs;
- Help the City of Flint with utility issues;
- Provide operational funding for the Flint Interagency Advisory Committee.

The funding bill totals \$28 million with \$22.6 million from the general fund. The remaining \$5.4 million comes from a combination of federal and restricted funds. It is now Public Act 3 of 2016.

Governor Snyder will propose a long-term funding solution to address the ongoing needs of Flint in his Feb. 10 formal budget recommendation. Long-term health monitoring for children exposed to the water and potential replacement of water infrastructure and service lines will be addressed through the governor's traditional budget recommendation, which will be shared on Feb. 10.

We will continue to work to improve the water situation in Flint. Community members and local officials are working together to make sure we hear and respond to concerns.

Thursday, January 28 a plan to recycle the thousands of plastic bottles being distributed during the Flint water crisis. The plan includes drop-off sites for recyclables and increased promotion of the curb side pickup already offered to Flint residents. [To learn more about the recycling plan in Flint, click here.](#)

For updates, please visit [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater).

Thank you, again, for taking the time to share your concerns with our office. Should you have any further comments, questions or concerns regarding this or any other state-related matter, I've included my contact information below.

Sincerely,

Laura Stoken  
Constituent Relations Division  
Executive Office of the Governor, Rick Snyder  
517.335.7858 (o)

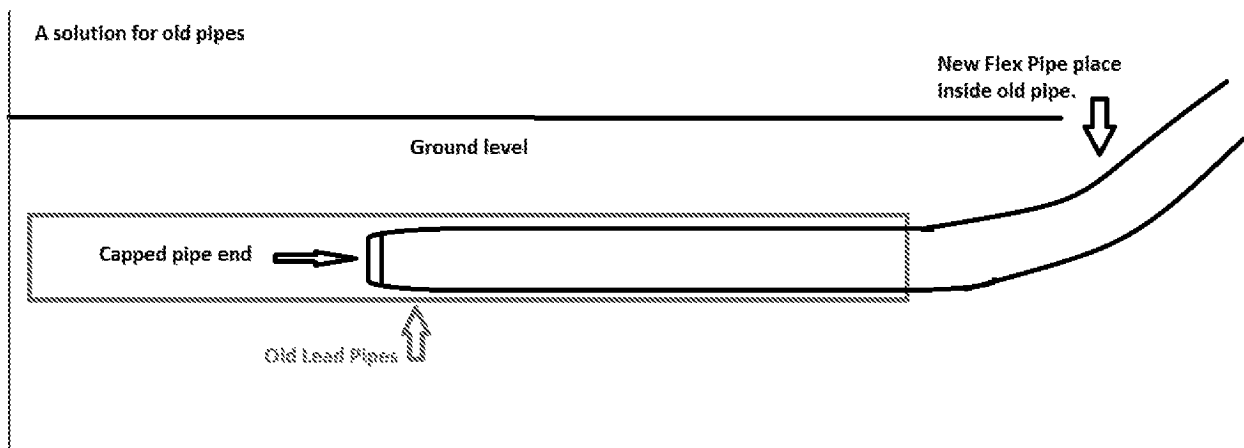
Greetings;

While I am not an engineer I have come up with a solution for the Flint water line replacement issues. The concept came from remembering how new natural gas lines were being placed this past summer. The lines had a flex to them and where placed in holes bored at an angle underground the running horizontally.

Using a similar concept use a flex pipe that is smaller than the inside diameter of the old pipe. the end that is inserted is capped to protect the inside of the new pipe while it is sliding the old pipe.

This concept can be used for main and feeder lines.

See Diagram below for example:



It is my belief that this would greatly reduce the time and expense needed to repair and or replace the old toxic water lines. The slightly smaller lines will slightly reduce the rate of flow but the speed which it could be greater than digging up the old lines.

Please consider this as a quicker solution to the issue that has arisen in Flint.

Brian Storace  
Owosso,MI



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**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, February 02, 2016 10:08 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint Water solution suggestion  
**Attachments:** flint pipe solution.pdf

For your determination

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**From:** B Storace [<mailto:brs2home@yahoo.com>]  
**Sent:** Friday, January 22, 2016 3:51 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Subject:** Fw: Flint Wat solution suggestion

2nd attempt first was kicked back

----- Forwarded Message -----

**From:** B Storace <[brs2home@yahoo.com](mailto:brs2home@yahoo.com)>  
**To:** "brian.calley@michigan.gov" <[brian.calley@michigan.gov](mailto:brian.calley@michigan.gov)>  
**Sent:** Wednesday, January 20, 2016 8:13 PM  
**Subject:** Flint Wat solution suggestion

Mr. Calley;

The share an opinion system was not working tonight for Govenor Snyder. I was trying to pass a long a solution I came up with for the toxic Flint pipes. I have a PDF attached explaining the solution. If you could please pass it along to anyone who will find it useful it solving the issues.

Best regards  
Brian Storace  
1709 N. M 52  
Owosso, MI 48867

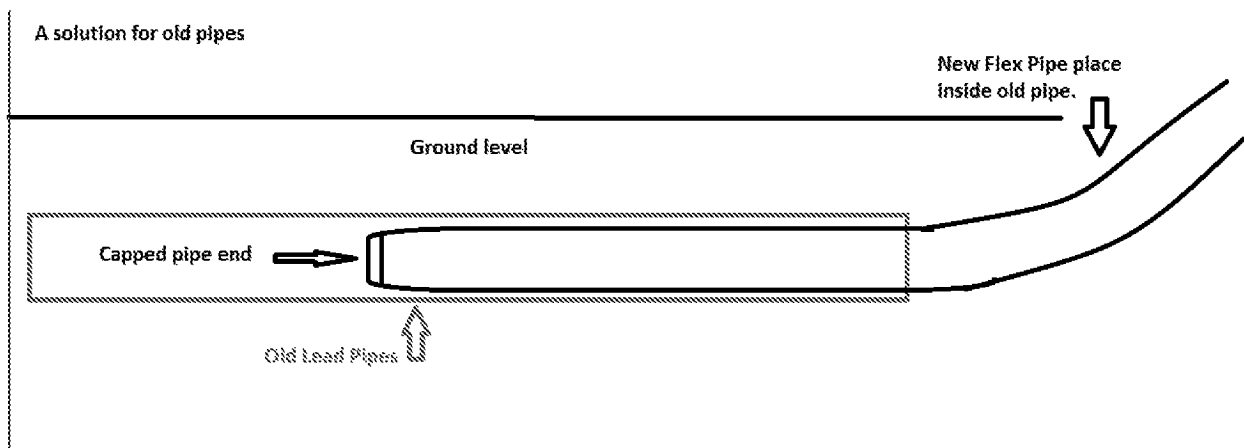
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Brian Storace  
Owosso,MI

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**From:** McBride, Bill (GOV)  
**Sent:** Tuesday, February 02, 2016 1:06 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: IBWA Letter for Governor Snyder  
**Attachments:** Snyder Flint letter 012916.pdf

---

**From:** James Toner [<mailto:JToner@bottledwater.org>]  
**Sent:** Monday, February 01, 2016 7:46 AM  
**To:** McBride, Bill (GOV) <[mcbrideb@michigan.gov](mailto:mcbrideb@michigan.gov)>  
**Subject:** IBWA Letter for Governor Snyder

Bill,

I hope this finds you well and that you are holding up with everything going on regarding Flint. It's been a while since we have talked but I was always impressed with all the individuals in Governor Snyder's office that cover water issues. So, I imagine you have things well in hand.

I wanted to get this letter from IBWA to the Governor to let him know the bottled water industry is doing all we can and we stand ready to assist in any way possible moving forward.

Please let me know if you have any questions or if I can be of further assistance.

JP

James P. Toner, Jr.  
Director of Government Relations  
International Bottled Water Association (IBWA)  
1700 Diagonal Road  
Suite 650  
Alexandria, Virginia 22314  
703.647.4616 Direct  
703.683.5213 Main  
703.683.4074 Fax

Follow IBWA on





1700 Diagonal Road, Suite 650  
Alexandria, VA 22314  
Ph: 703-683-5213  
Fax 703-683-4074  
Web: [www.bottledwater.org](http://www.bottledwater.org)

January 29, 2016

The Honorable Rick Snyder  
Governor of Michigan  
P.O. Box 30013  
Lansing, MI 48909

Dear Governor Snyder,

The International Bottled Water Association (IBWA) would like to take this opportunity to offer our assistance to you and your administration in responding to the recent water emergency in Flint, Michigan. Our members are very familiar with the logistics of responding to events such as natural disasters, water main breaks, and other incidents that can compromise public water systems. IBWA therefore appreciates the recent efforts undertaken by the state, the city of Flint, and third parties to ensure that citizens receive clean, potable water during this significant crisis. Over the years, IBWA has had several opportunities to discuss various water issues with your staff and we have always been impressed with their knowledge and understanding of critical water infrastructure matters.

The bottled water industry is always there to help during a natural disaster or other emergency situation. And every year, IBWA members respond to requests -- both big and small -- to provide bottled water to those in need. In Flint, IBWA members immediately stepped forward to reroute trucks and coordinate with local suppliers to provide citizens with safe, clean, bottled water when the public water system was found to be compromised. So far, IBWA members have taken the following actions to help provide the citizens of Flint with safe drinking water:

- Donated over 1.5 million bottles of bottled water.
- Coordinated efforts with emergency relief partners such as Convoy of Hope and the Food Bank of Eastern Michigan.
- Worked with other bottled water retailers and bottlers to ensure approximately 10,000 Flint public school students have access to clean, safe water.

IBWA is the national trade association that represents all segments of the bottled water industry, including spring, mineral, purified, artesian, and sparkling. Founded in 1958, IBWA member companies include water producers, distributors, and suppliers throughout the United States, including several companies conducting business in Michigan. While we represent companies of all sizes, the vast majority of our members are small, locally-owned companies, with 60 percent reporting less than \$2.5 million in annual gross sales, and 90 percent reporting less than \$10 million in annual gross sales. IBWA's mission is to serve the members and the public by championing bottled water as an important choice for healthy hydration, and promoting an environmentally responsible and sustainable industry.

While the conditions associated with the situation in Flint continue to be addressed, please know that the bottled water industry is always ready to help in any way to assist in providing safe, clean, healthy water.

Please contact me should you have any questions or if we can be of any further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Joe Doss".

Joe Doss  
President and CEO



1700 Diagonal Road, Suite 650  
Alexandria, VA 22314  
Ph: 703-683-5213  
Fax 703-683-4074  
Web: [www.bottledwater.org](http://www.bottledwater.org)

January 29, 2016

The Honorable Rick Snyder  
Governor of Michigan  
P.O. Box 30013  
Lansing, MI 48909

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Please contact me should you have any questions or if we can be of any further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Joe Doss".

Joe Doss  
President and CEO

---

**From:** Stoken, Laura (GOV)  
**Sent:** Friday, January 29, 2016 3:46 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: We'd like to offer our services to the people of Michigan

Forwarding for your determination

**From:** Jim Kissane [<mailto:jim@yourlifearchive.com>]  
**Sent:** Friday, January 29, 2016 3:14 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Cc:** Susan Haines <[susanh@theonefile.com](mailto:susanh@theonefile.com)>  
**Subject:** We'd like to offer our services to the people of Michigan

Hon. Governor Snyder,

The way the state of Michigan responds to the water crisis in Flint (and other cities), will be recorded in history. We would like to help write the page that shows how your office responded compassionately and quickly to this incident, showing benevolence throughout the process.

My company is prepared to help your office immediately respond to this crisis, providing a visible and tangible demonstration to the rest of the country of your commitment to limiting further harm to your constituents, and mitigating the state from unnecessary legal expense.

Mrs. Susan Haines, of my staff has been in conversation with the RNC leadership, and it was their recommendation that my company reach out to you.

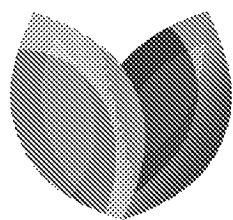
We are prepared to provide immediately, a means for the thousands of families to securely gather and archive and catalog their medical information, so that in the inevitable lawsuit that follows, the resident's information has been gathered and protected, and that the financial damage of a huge settlement is contained.

My firm operates one of the most secure encrypted data vaults in North America, and the principals of my leadership team are well experienced in responding to crisis situations, where technology needs to be pressed into service to serve the public good.

If this proposition suits your needs and interest I would invite you or a member of your staff to reach out to me so we can begin a dialog, which we can then turn into a proposal to the state.

Sincerely,

Jim Kissane, CEO/President  
YourLifeArchive Inc.  
*home of* **TheOneFile**  
(800) 657-9067  
(813) 765-4225 (my personal cell phone)



# ESSENTIAL EFFECTS™

**ESSENTIAL EFFECTS RINSE-FREE SHAMPOO WIPES™** were created to provide an easy and convenient way to clean and refresh hair. Our unique formula along with our soft durable wipes are the ideal solution to remove excess oil and dirt from the scalp and roots without using water. The wipes are free of parabens and sulfates and are gentle enough for all hair types. Pre-moistened and ready to use, our wipes are the perfect product for all clients.

Senior Living Communities and Caregivers Shampoo Wipes™ make hair care an easier and more enjoyable experience for seniors at all stages in life — from those living independently to those living in long-term care



facilities. By using our wipes, caregivers will have a simple, effective and refreshing way of cleansing hair. Formulated with sulfate-free and paraben-free ingredients, our wipes provide the perfect cleansing solution without the use of water, making it easier for caregivers to focus on the other needs of those in their care.

**Outpatients and Medical Facilities**  
Essential Effects Shampoo Wipes™ are ideal for patients who are unable to wash their hair due to recent surgery or other temporary medical conditions. Our wipes will enable nurses and other treatment providers to conveniently and comfortably clean their patients' hair. Unlike dry shampoos, our mess-free and powder-free wipes will effectively eliminate dirt and oil from hair. For patients recovering at home or at the hospital, Shampoo Wipes™ are an essential item that will maximize comfort and help them focus on



what's most important — a speedy recovery. Your patients and loved ones will truly appreciate the ease and effectiveness of our wipes.

## Military

Designed for easy transport, our product will provide our armed forces around the world



an accessible hair cleansing solution. Our specially formulated Shampoo Wipes™ will allow our

service men and women a fast and effective way of cleaning their hair in locations where water is limited.



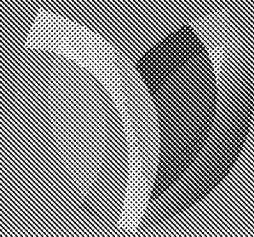
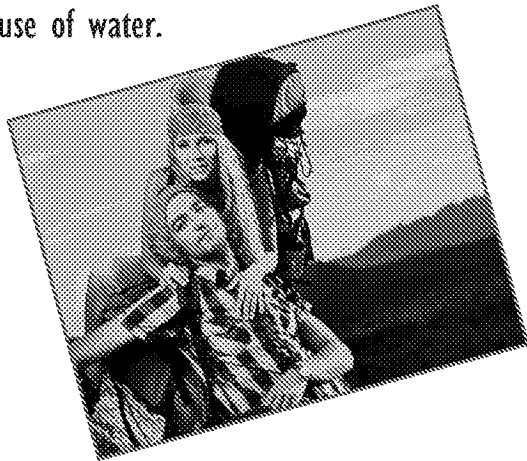
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Individually wrapped, our soft, pre-moistened wipes are the fundamental travel companion. Perfect for travelers, backpackers, campers and hikers, our wipes refresh and moisturize wherever you go. With Essential Effects Shampoo Wipes™, you can now travel the world and still have clean hair — all without the use of water.



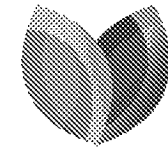
**ESSENTIAL EFFECTS™**  
develops resourceful health and beauty  
solutions with broad applications  
that enhance your life

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888.731.3929

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*How do you keep your hair  
clean and fresh without the use of  
shampoo, water or powder?*

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**ESSENTIAL EFFECTS™**

*Shampoo Wipes™*

*are an innovative  
and simple  
hair cleansing  
solution!*





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**From:** Stoken, Laura (GOV)  
**Sent:** Friday, January 29, 2016 3:47 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Water Emergency - Shampoo Wipes to Mitigate Damages  
**Attachments:** EE Brochure - Inside.pdf; EE Brochure - Outside.pdf

For your determination

-----Original Message-----

From: [ronald@essentialeffects.com](mailto:ronald@essentialeffects.com) [ronald@essentialeffects.com](mailto:ronald@essentialeffects.com) [<mailto:ronald@essentialeffects.com>]  
Sent: Friday, January 29, 2016 2:26 PM  
To: Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
Subject: Water Emergency - Shampoo Wipes to Mitigate Damages

Dear Governor Snyder:

My name is Ron Van and I am President of a company, Essential Effects, LLC, based in California. I am aware of the ongoing water crisis in Flint, Michigan.

My company manufactures a new product, rinse-free Shampoo Wipes, that I believe may be of necessity to residents of Flint during the water crisis. Our rinse-free Shampoo Wipes allow users to clean their hair without using water.

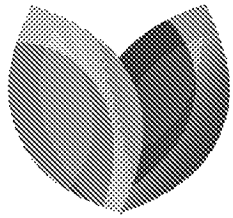
Our company is about to supply our Shampoo Wipes to the Marine Corp. Exchange, but I believe that our wipes may also come in handy for the residents of Flint as we have heard about alleged claims of hair loss by residents who have been using water to bath and shower. I trust that the State and City of Flint will do everything it can to mitigate any potential damages that residents may later seek.

I encourage you to visit our website at [www.essentialeffects.com](http://www.essentialeffects.com). I also enclose our product brochure. We are providing our Shampoo Wipes to the Marine Corp. Exchange at our lowest possible price, which is \$1 per wipe (not including shipping). We would gladly honor this price to the State and the City of Flint, in light of this water crisis, if there is any interest in providing these Shampoo Wipes to Flint residents.

Please contact me at (310) 346-4789 if the State has any interest in our product. We do have a limited stock on hand and so I hope to hear back from you soon.

We can ship as early as next week. I look forward to hearing from you shortly.

Regards,  
Ron Van  
President  
Essential Effects  
[www.essentialeffects.com](http://www.essentialeffects.com)  
[ronald@essentialeffects.com](mailto:ronald@essentialeffects.com)  
(310) 346-4789



# ESSENTIAL EFFECTS™

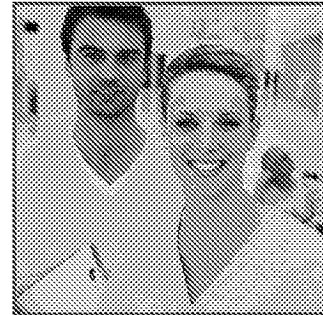
**ESSENTIAL EFFECTS RINSE-FREE SHAMPOO WIPES™** were created to provide an easy and convenient way to clean and refresh hair. Our unique formula along with our soft durable wipes are the ideal solution to remove excess oil and dirt from the scalp and roots without using water. The wipes are free of parabens and sulfates and are gentle enough for all hair types. Pre-moistened and ready to use, our wipes are the perfect product for all clients.

Senior Living Communities and Caregivers Shampoo Wipes™ make hair care an easier and more enjoyable experience for seniors at all stages in life — from those living independently to those living in long-term care



facilities. By using our wipes, caregivers will have a simple, effective and refreshing way of cleansing hair. Formulated with sulfate-free and paraben-free ingredients, our wipes provide the perfect cleansing solution without the use of water, making it easier for caregivers to focus on the other needs of those in their care.

**Outpatients and Medical Facilities**  
Essential Effects Shampoo Wipes™ are ideal for patients who are unable to wash their hair due to recent surgery or other temporary medical conditions. Our wipes will enable nurses and other treatment providers to conveniently and comfortably clean their patients' hair. Unlike dry shampoos, our mess-free and powder-free wipes will effectively eliminate dirt and oil from hair. For patients recovering at home or at the hospital, Shampoo Wipes™ are an essential item that will maximize comfort and help them focus on



what's most important — a speedy recovery. Your patients and loved ones will truly appreciate the ease and effectiveness of our wipes.

## Military

Designed for easy transport, our product will provide our armed forces around the world



an accessible hair cleansing solution. Our specially formulated Shampoo Wipes™ will allow our

service men and women a fast and effective way of cleaning their hair in locations where water is limited.



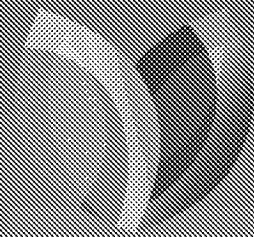
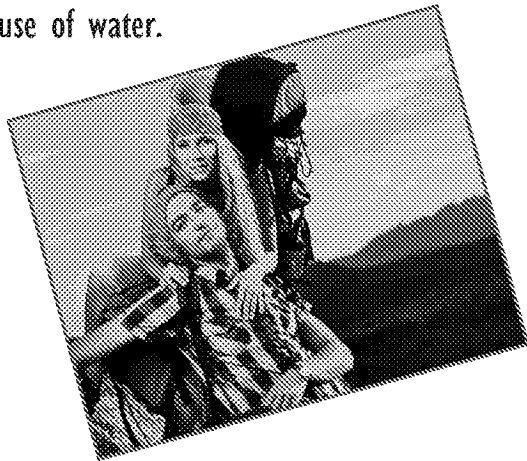
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Individually wrapped, our soft, pre-moistened wipes are the fundamental travel companion. Perfect for travelers, backpackers, campers and hikers, our wipes refresh and moisturize wherever you go. With Essential Effects Shampoo Wipes™, you can now travel the world and still have clean hair — all without the use of water.



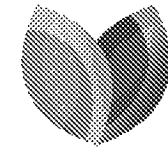
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(973) 812-0333  
FAX (973) 812-0330

January 26, 2016

Mayor Dr. Karen Weaver  
1101 S. Saginaw Street  
Flint MI 48502

Dear Mayor Weaver,

We are writing regarding your efforts to correct the Flint drinking water problems. In many cases rehabilitation of existing water mains is more beneficial than replacement. Rehabilitation via in-situ cement mortar lining is a proven long term effective means of corrosion prevention. It is economical, effective, and minimally disruptive. We are enclosing the following three reference documents to assist in correcting the Flint water system problems.

1. American Water Works Association (AWWA) standard C602 for Cement Mortar Lining of Water Pipelines in Place 4 in. and Larger.
2. American Water Works Association (AWWA) manual M28 Rehabilitation of Water Mains (partial copy of manual)
3. History and Development of Water Main Rehabilitation by In-situ Cement Mortar Lining Technology

Metra Industries is proficient in the performance of In-Place Cement Mortar Lining of water mains as well as many other rehabilitation technologies. Please call if you have any questions. We would be very happy to help. Thank you.

Very Truly Yours,



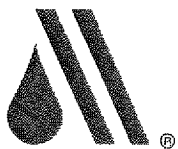
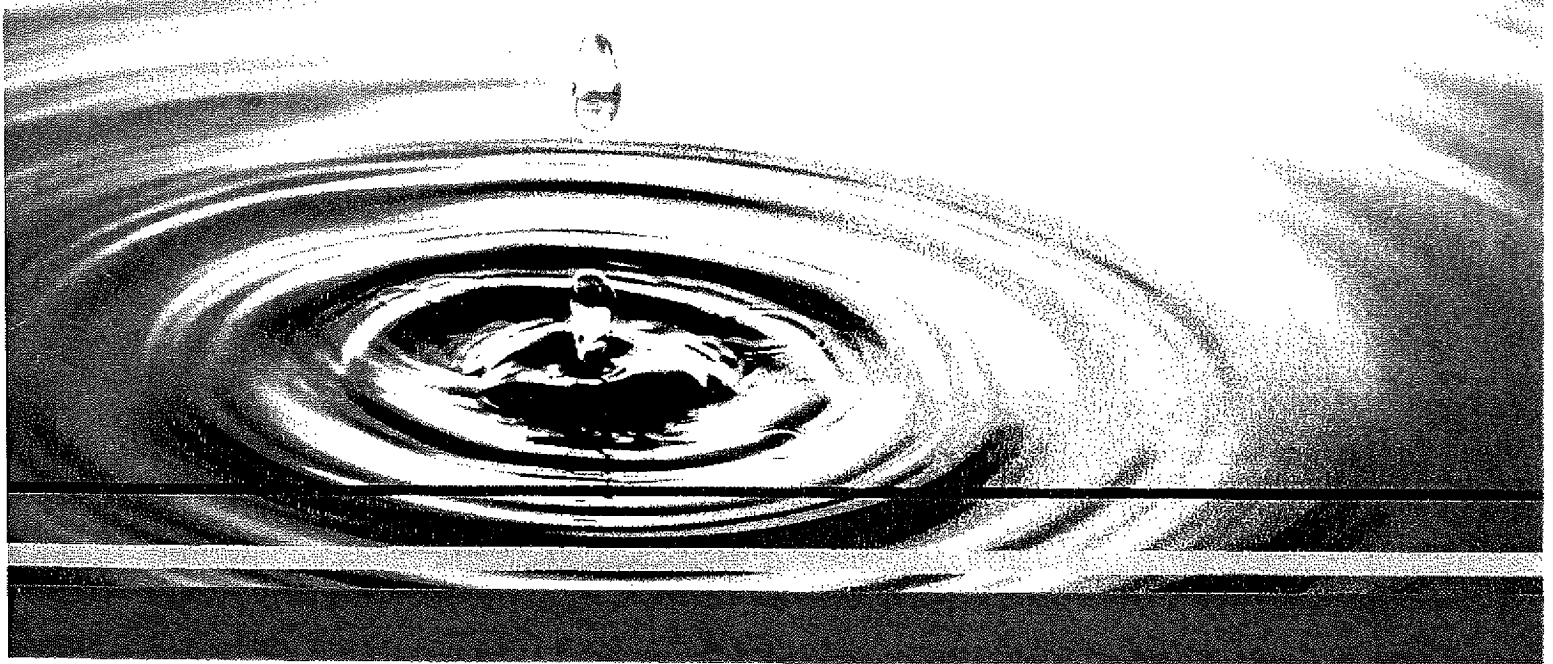
Joseph W. Dioslaki, P.E.  
Project Manager

CC: Governor Rick Snyder  
Bob Kaplan, EPA Region 5 Deputy Administrator  
Miguel Del Toral, EPA Region 5 Ground Water Drinking Water Branch Relations Manager  
Darren Lytle, EPA Office of Research and Development Scientist  
Michael Schock, EPA Office of Research and Development Scientist  
Jeff Kempic, EPA Office of Water Lead and Copper Rule Technical Lead  
Tim Henry, EPA Region 5 Water Division Deputy Director  
Tom Poy, EPA Region 5 Ground Water Drinking Water Branch Chief

# Rehabilitation of Water Mains

MANUAL OF WATER SUPPLY PRACTICES

28



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The Authoritative Resource for Safe Drinking Water™



## Chapter 1

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# Distribution System Performance Criteria

### WATER QUALITY

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The quality of treated drinking water may vary considerably, both from system to system and within a system, as a result of deterioration after it leaves the treatment plant and comes in contact with the interior of distribution system piping. Over time, changes in water chemistry can cause problems throughout the distribution system, ultimately affecting the quality of the water delivered to the end user.

The specific nature of distribution system water quality problems vary with water chemistry. However, the majority of these problems fall into three categories: sedimentation, encrustation, and fouling.

#### Sedimentation

Sedimentation is the process whereby solids settle out of water moving at low velocity in a main, reducing interior cross section and capacity. Source water pipelines or pipelines carrying improperly treated water can be subject to deposits of sand, silt, or organic materials. In extreme cases, sedimentation can also contribute to hydraulic problems, particularly at low points in the pipe.

Even slight overtreatment of water can result in posttreatment precipitation within the distribution system of deposits containing alum, lime, or calcium carbonate. A utility may promote controlled precipitation to lay down a thin layer (eggshell coating) of calcium carbonate for protection of the metallic pipeline interior. However, excessive or irregular deposits can easily occur, requiring cleaning of the distribution system.

#### Encrustation

Encrustation is a by-product of corrosion (tubercles) mixed with mineral deposits, such as iron, manganese, and carbonates. Before the 1960s, many iron pipes were





Figure 1-1 Pipe with problems caused by corrosion

installed without linings to protect the interior surfaces. These unlined pipes often experience internal corrosion.

As corrosion occurs, the interior of the pipe develops pits from which material is removed and tubercles where material is deposited (Figure 1-1). Additionally, corrosion can create "red water" complaints from end users. Corrosion may result from direct oxidation or electrolytic action, both fostered by aggressive water. Tuberculation can vary with water chemistry (from very soft to very hard water). Proper water chemistry does help to prevent additional buildup of encrustation. Most encrustation can be removed by cleaning. Perhaps the most significant water quality problem presented by encrustation are the potential difficulties maintaining a disinfectant residual. Removal of encrustation often increases a system's disinfectant residual; however, regrowth of encrustation is likely in unlined iron pipes.

### Fouling

Fouling represents a very significant problem, but one that is not always well-understood. A fouling problem can develop with any type of pipe material. The condition is usually caused by natural biological activity and results in buildup of an organic deposit on the interior of the pipe. Although this deposit is often soft and filamentous, it can severely affect water turbidity and cause taste-and-odor problems. Bacteriological activity from organisms, such as iron-fixing bacteria, can result in development of slimes and severe deposits in the pipe.

## HYDRAULIC PERFORMANCE

In addition to water quality problems discussed so far, any buildup inside distribution system piping can greatly reduce the hydraulic performance of the system. Hydraulic engineers have long determined flow in pipes by using the empirically derived Hazen-Williams formula:

$$V = 1.318Cr^{0.63}s^{-0.54}$$

Table 1-1 Hazen-Williams coefficient

Condition	C
New pipe	130-140
Fair to normal (interior clean)	100
Significant reduction in pipe capacity	70
Severe problem—interior cross section greatly reduced	30-50

where:

- $V$  = velocity, in ft/sec (m/sec)
- $r$  = hydraulic radius, in ft (m), which is the cross-sectional area of the pipe divided by the wetted perimeter
- $C$  = Hazen-Williams roughness coefficient
- $s$  = slope of the hydraulic grade line, in ft/ft (m/m)

$C$  (often called the "C factor") represents the coefficient of friction, a measure of the roughness of the interior of the pipe. Expressed in terms of  $C$ , the formula can be stated as:

$$C = 2,466QD^{-2.63}H^{-0.54}L^{0.54}$$

where:

- $C$  = Hazen-Williams roughness coefficient
- $Q$  = Quantity of flow in a pressure conduit, in mgd ( $m^3/d$ )
- $D$  = Nominal diameter of the pipe, in in. (mm)
- $H$  = Head loss, in ft (m) of water
- $L$  = Length of pipe, in ft (m)

The  $C$  factor, and hence the flow in a pipeline, depends on the type of pipe and its interior condition (see Table 1-1). For a given velocity, increased internal surface roughness (changing laminar to turbulent flow) can lead to a reduction in overall pipeline efficiency.

Field testing techniques allow distribution system operators to calculate Hazen-Williams  $C$  factors for their systems. These data help in making informed decisions about which process to employ to restore hydraulic efficiency. Collecting data for the Hazen-Williams  $C$  factor after employing any cleaning or pipe rehabilitation process is also a very useful way to gauge the impact of the system improvements.

## STRUCTURAL PERFORMANCE AND LEAKAGE

The structural performance of a water main may deteriorate over time because of a number of effects. Cast-iron, ductile-iron, and steel piping may be subject to internal and/or external corrosion, resulting in pitting and wall thinning, which can lead to leakage and eventual burst failures. Cement-based pipes such as asbestos-cement and concrete piping may also be subject to deterioration due to corrosion of the cement matrix and/or steel reinforcement. In addition, all types of pipe, including thermoplastics, may be subject to joint failure between pipe lengths and hence excessive leakage, which can in turn lead to washout of bedding and subsequent structural failure.

Such structural and leakage failures can have direct consequences such as high maintenance costs, water quality problems, service interruptions, and loss of valuable treated water. They may also have indirect consequences in terms of the economic and public relations costs of damage associated with bursts and the overall public image of the service provider.



## REHABILITATION SOLUTIONS

---

This manual describes a number of possible solutions to problems arising from corrosion and deposition. These range from simple periodic cleaning to replacement of the pipe using "trenchless" techniques. All of the solutions discussed in the manual make some use of the existing pipe, either as part of the rehabilitated system (renovation solutions) or as a convenient route for installation of new piping (replacement solutions). Solutions involving installation of a replacement pipe along a new route, such as open trench laying, directional drilling, and microtunneling, are outside the scope of this manual.

Selecting the optimal solution to a specific pipeline problem is a complex process involving both technical and economic considerations. Both the American Water Works Association Research Foundation and a number of AWWA technical committees are developing computer-based decision tools to assist utility engineers in this process. This work is expected to come to fruition while this edition of the manual remains in effect. In the meantime, the following guidelines may prove useful.

## SELECTION OF REHABILITATION SOLUTIONS

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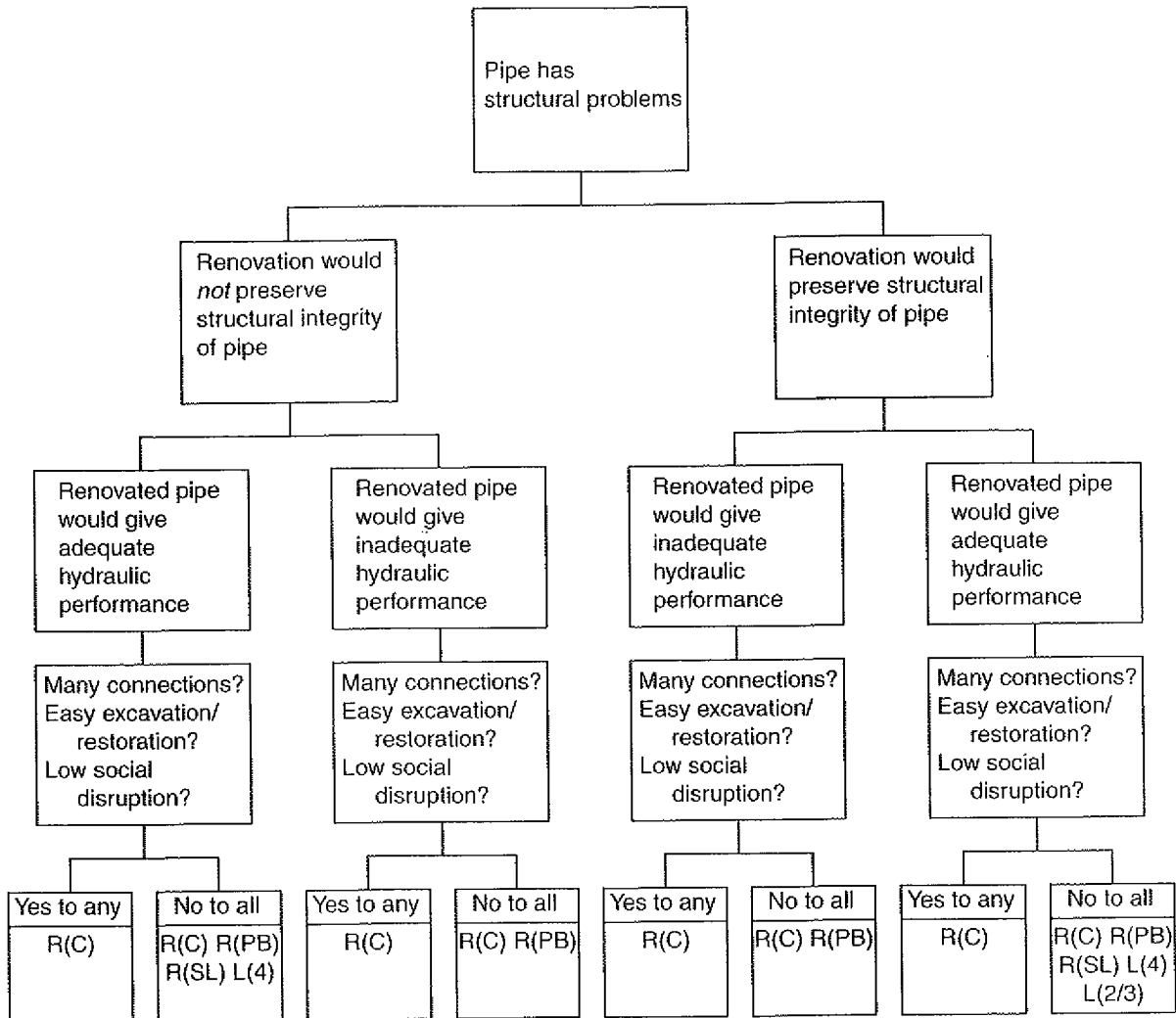
Key elements in the selection of a rehabilitation solution are

1. The exact nature of the problem(s) to be solved
2. The hydraulic and operating pressure requirements for the rehabilitated main
3. The materials, dimensions, and geometry of the water main
4. The types and locations of valves, fittings, and service connections
5. The length of time in which the main can be taken out of service
6. Site-specific factors

The aim of the selection process is to consider all these factors to arrive at the most cost-effective, technically viable solution. Ideally, the cost estimate should include not only direct contracting and related costs but also indirect costs associated with public disruption and longer-term maintenance and other "life cycle" costs.

One approach to technique selection is summarized in Figures 1-2, 1-3, and 1-4. Together, these charts provide a framework for selecting or rejecting groups of techniques, depending on the nature of the performance problems, hydraulic requirements, and some site-specific factors. In some cases, the charts indicate use of lining techniques classified as either Class I (nonstructural), Class II/III (semistructural), or Class IV (structural). A more detailed discussion of this classification system and of other key design issues associated with such lining techniques is presented in appendix A.

The figures do not list cleaning as a solution for water quality or flow and pressure problems. Cleaning with one of the various techniques discussed in the manual may well offer the lowest-cost immediate solution to many of these problems. It may offer a long-term solution if repeated as required or combined with chemical treatment of water to prevent or delay recurrence of the original problem. However, cleaning is more frequently used as a necessary preliminary step before carrying out one of the lining processes described in the manual.



R(C)—Replacement (conventional or boring/directional drilling)  
 R(PB)—Replacement (pipe bursting)  
 R(SL)—Replacement (slip-lining)  
 L(2/3)—Lining (semistructural—Class II/III)  
 L(4)—Lining (structural—Class IV)

Figure 1-2 Selection of rehabilitation techniques to resolve structural problems

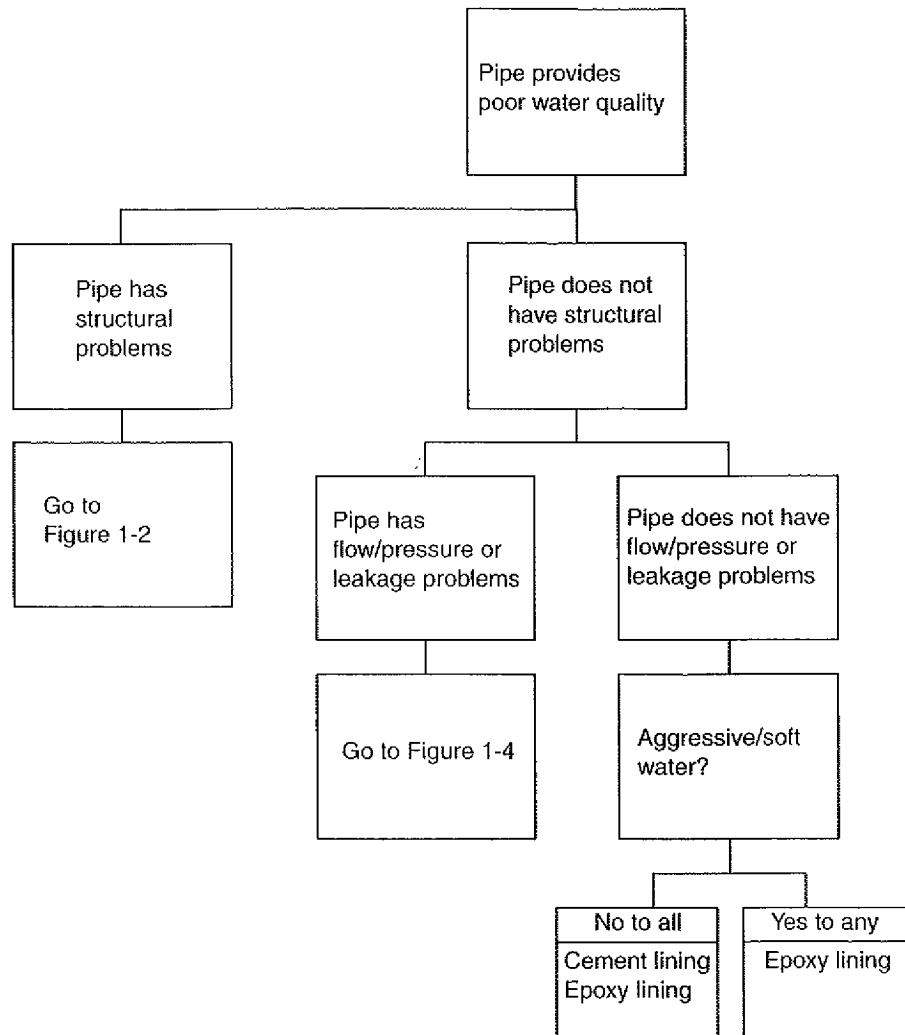
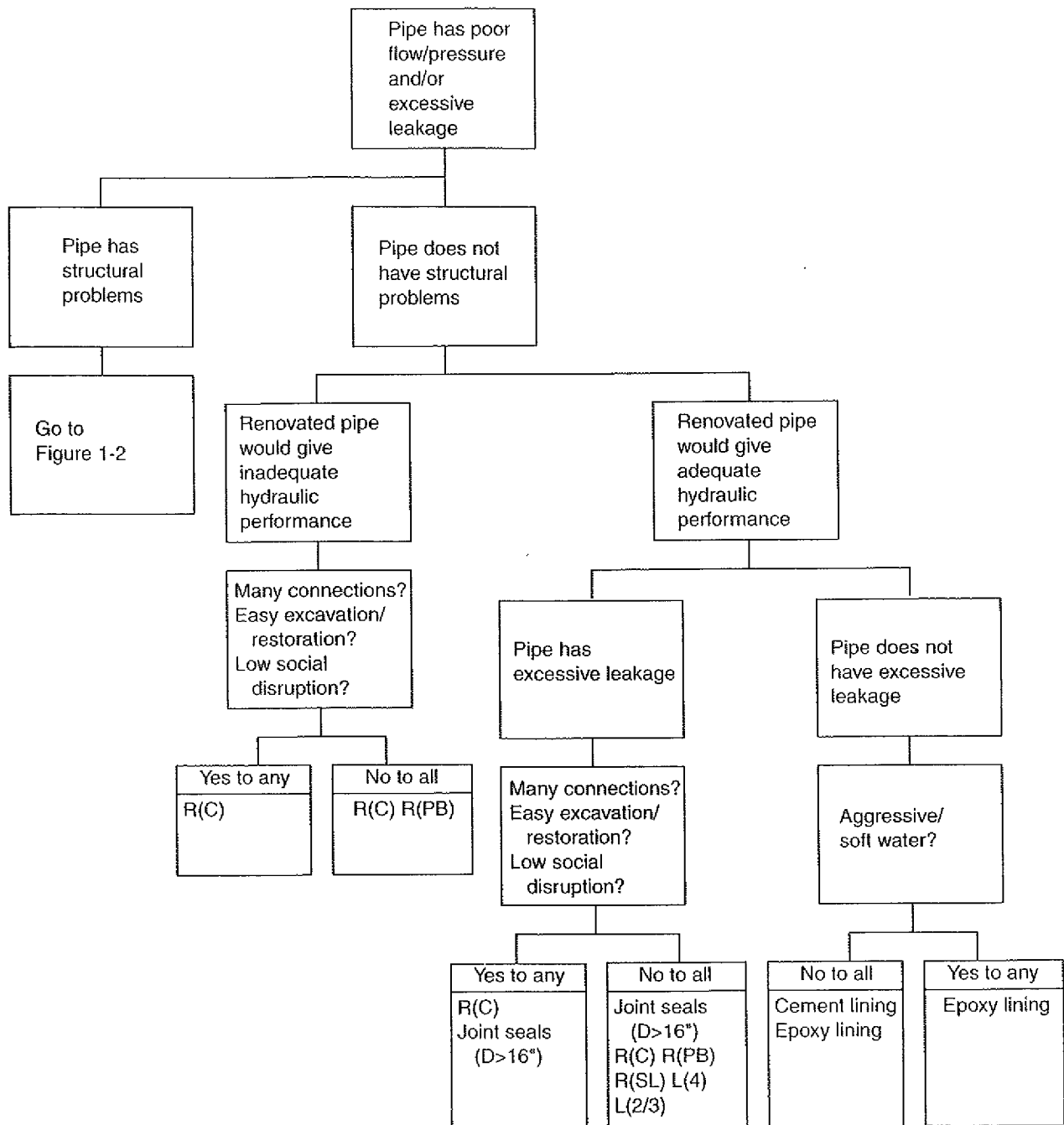


Figure 1-3 Selection of rehabilitation techniques to resolve water quality problems



R(C)—Replacement (conventional or boring/directional drilling)  
 R(PB)—Replacement (pipe bursting)  
 R(SL)—Replacement (slip-lining)  
 L(2/3)—Lining (semistructural—Class II/III)  
 L(4)—Lining (structural—Class IV)

Figure 1-4 Selection of rehabilitation techniques to resolve flow, pressure, and leakage problems



## Chapter 2

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# Cleaning

Water mains can be cleaned in place in a water distribution system using one or more of the following methods:

- Flushing
- Cable-attached devices
- Fluid-propelled devices
- Power boring

Dispose of cleaning water and debris in accordance with applicable regulations. Refer to AWWA Standard C651, *Disinfecting Water Mains*, for guidance in disinfecting pipelines before returning them to service.

## FLUSHING

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Water main flushing has a definite place in distribution system operation. It is particularly effective for light cleaning jobs. Mains should be flushed to clean newly installed and repaired mains prior to and after disinfection. Routine flushing is needed to remove impurities that cause complaints or are considered hazardous to public health. Refer to the AWWA handbook titled *Maintaining Distribution-System Water Quality* for specific flushing program guidelines.

Flushing should never be considered the only solution to water quality problems identified in the distribution system. Proper design and operation of distribution facilities and an effective backflow-prevention program should also be part of any effort to maintain water quality. While quality control is the primary purpose of flushing, careful observation of system hydraulics during flushing may indicate problems in mains, such as inadequate capacity, undiscovered restrictions, or closed or partially closed valves.

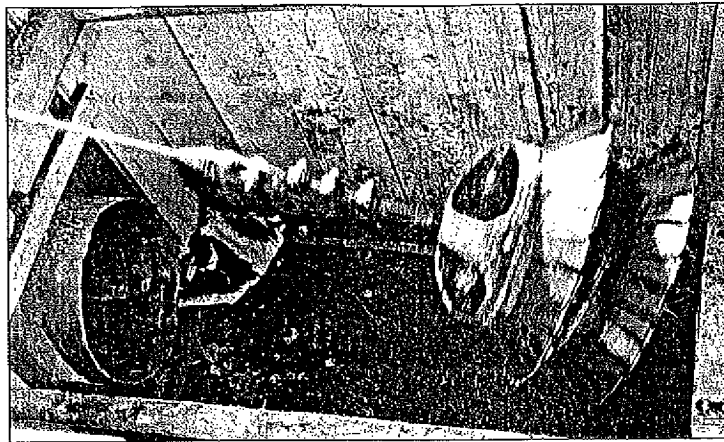


Figure 2-1 Drag cleaning, in which a winch pulls a mechanical cleaner through the pipe

## CABLE-ATTACHED DEVICES

Systems that use cable-attached devices for cleaning distribution mains include drag cleaning, hydraulic-jet cleaning, and electric scraper cleaning. In each case, the length of hose or cable determines the length of the pipe section that can be cleaned.

### Drag Cleaning

In drag cleaning, a winch pulls a mechanical cleaner, composed of a series of steel scraper blades and rubber squeegees, through the pipe (Figure 2-1). The mechanical cleaner is usually flexible, allowing it to negotiate bends of up to 45°. Both ends of the cleaner are fastened to steel cables, which are attached to winches at either end of the pipe section to be cleaned. The cleaner is winched first in one direction and then in the other, and this process continues until the pipe is satisfactorily cleaned.

This cleaning method offers important advantages:

- Cleaning can be accomplished when water pressure or volume is insufficient to propel a hydraulically driven device, or when excessive pressure would be required for hydraulic cleaning, especially with small-diameter mains.
- Very hard deposits and encrustation can be removed.
- Dry solids allow easy disposal.

### Hydraulic-Jet Cleaning

To clean pipe with a hydraulic jet, a special nozzle attached to a hose emits a jet of water at high velocity and pressure that removes debris and deposits from the interior of the pipe. Nozzle pressures of 1,000 to 10,000 psi (6,900 to 69,000 kPa) and above can be generated using this system. The jetted stream of water must bear hard enough against the scale or deposit to breach it and dislodge particles. Once the scale or depositional material is penetrated, the fluid forms a wedge between the deposit and the surface and strips off the deposit, exposing the clean metal surface. In many jetting operations, dislodged particles are entrained in the jetting stream and effectively dislodge more particles. The principal advantage of this method is removal of very tough deposits.

## Electric Scrapers

Electric scrapers are used to clean large-diameter lines. A variation of this cleaning method is the use of an electrically powered, operator-driven scraper. This power-driven scraper incorporates revolving brushes or rotating arms to clean the line.

The principal advantage of this method is the ability of the operator to evaluate the effectiveness of the cleaning process as it proceeds through the line.

## FLUID-PROPELLED CLEANING DEVICES

This section of the chapter describes fluid-propelled cleaning devices such as foam pigs and mechanical metal scrapers.

### Foam Pigs

Foam pigs are flexible, bullet-shaped cleaning tools manufactured of high-quality (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density) open-cell polyurethane foam, some coated with polyurethane synthetic rubber coatings (70 lb/ft<sup>3</sup> [1,121 kg/m<sup>3</sup>] density). (See Figures 2-2 and 2-3.) Pigs are propelled down water mains by the pressure and volume of water in the distribution system. Cleaning is accomplished by the frictional drag and flexible characteristics of the foam pig, which removes foreign objects, iron tuberculation, and other matter as it passes through the pipes, leaving the interior surfaces as smooth and free from irregularities as age, attrition of use, and type of piping material will allow. When water pressure is applied for propulsion, a certain amount of water bypass (approximately 10 percent) helps to keep loose debris suspended out in front of the foam pig (Figure 2-4).

Cleaning of deteriorating mains generally requires a series of swabs and foam pigs applied in progressively larger diameters (referred to as *progressive pigging*) until the pipe is restored to its original diameter.



Figure 2-2 Foam pig: A bullet-shaped device made of polyurethane foam



Figure 2-3 A foam pig with hardened coatings

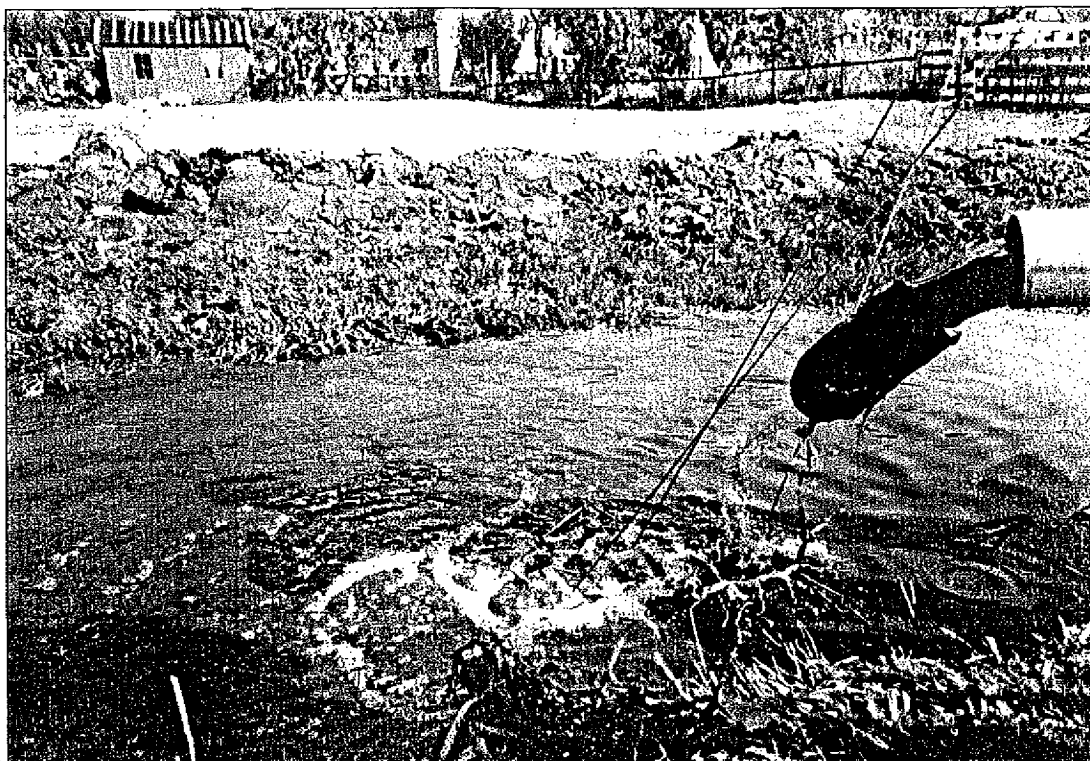


Figure 2-4 Loose debris flushed ahead of the pig

**Operating procedures.** The following steps briefly describe the most common operating procedures for cleaning water distribution mains with foam pigs. The described procedure is based on a best-case scenario; actual procedures may vary for certain applications.

1. Review drawings of lines to be cleaned to identify a) possible entry and exit points, and b) all valves to be used to isolate the section of system to be cleaned.
2. Exercise all valves in the section to be cleaned before the pigging operation to ensure isolation of the section to be cleaned.
3. Flow tests should be performed before and after the pigging operation to evaluate the efficacy of the cleaning and determine the resulting condition of the water main.
4. Provide adequate means for disposing any debris exiting the pipe. Storm drains may be suitable for disposing of small amounts of light debris. However, the best arrangement for handling large amounts of heavy debris would be to direct the flow to a temporary settling pond, the bed of a dump truck, etc., to facilitate removal of solids once the water has drained away.
5. Notify all affected customers (commercial and residential) as well as fire department officials of the scheduled interruption of service.



6. Confirm that all valves in the section to be cleaned are fully opened and working properly and that the section is properly isolated. Foam pigs follow the direction of flow, which must be controlled by the valve locations.
7. Introducing the foam pigs into the water main may be accomplished either by hand or through the use of mechanical equipment commonly called a *pig launcher*. Several types of fire hydrants, once they are disassembled, can be used as entry and exit points for pigging of some water mains 6 in. (150 mm) and smaller (Figure 2-5).
8. To produce the best cleaning results, foam pigs should travel through a water main at a rate of 3 to 9 ft/sec (9 to 24 m/sec).
9. Sequence of foam pig runs:
  - a. Introduce a line-sized, soft-foam swab (1.5 to 2.0 lb/ft<sup>3</sup> [24 to 32 kg/m<sup>3</sup>] density, uncoated), called a *prover pig*, to determine the actual effective inside diameter of the pipe to be cleaned. The swab wears down while passing deposits in and along the pipe wall.
  - b. Introduce a line-sized bare foam pig (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density, uncoated) to remove soft deposits and help gauge the true opening in the line.
  - c. Introduce a line-sized, coated foam pig (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density, coated with urethane elastomer). This type of foam pig should be run repeatedly until one emerges in reusable condition. A water line with excessive buildup should be pigged using the progressive pigging method, beginning with undersized, coated foam pigs and gradually increasing the size in successive passes until a line-sized foam pig emerges in reusable condition.

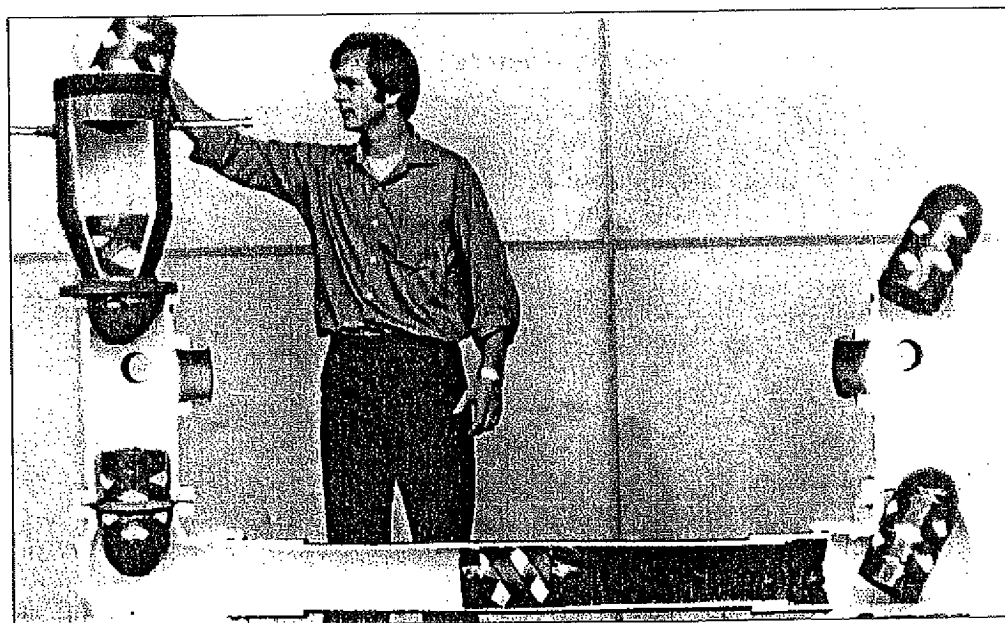


Figure 2-5 Pigs launched through a disassembled fire hydrant for a 6-in. (150-mm) or smaller line

- d. Line-sized, wire brush foam pigs may be introduced following these applications for final removal of extremely hard deposits (such as tuberculation).
  - e. Introduce a line-sized swab (1.5 to 2.0 lb/ft<sup>3</sup> [24 to 32 kg/m<sup>3</sup>] density foam, uncoated) to sweep out any loose debris and determine the effectiveness of the cleaning process.
10. Flush and disinfect as required.
  11. Place the water main back into service.

Foam pigs are flexible enough to negotiate short-radius bends and pass through full-port valves and some types of plug valves. Their capability to be compressed up to 35 percent of their cross-sectional area allows them to pass through multidimensional lines and full-port valves. A piggable valve is one through which a pig will pass every time. Foam pigs do not pass through butterfly valves. Foam pigs can clean long sections of piping from one entry point, thus reducing the number of excavation sites required. Pigging is a fast, simple, and cost-effective method of returning most deteriorated piping systems to as-designed capacity and efficiency.

### Metal Scrapers

A metal cleaning scraper consists of a steel frame shaped like a piston. Specially tempered steel blades are attached around the scraper at various angles to create a scraping and brushing action (Figures 2-6 through 2-8). The cleaner is propelled through the water main by means of water pressure.

Cleaning is often accomplished with a single pass in a continuous operation; sometimes, however, interior pipe conditions may require additional passes. The length of pipeline that can be cleaned hydraulically in one operation is limited only by the availability of volume and pressure water and a proper means of disposing of water and deposits. An opening must be provided at each end of the section to be cleaned for entry and exit of the cleaning tool. The volume of water required to hydraulically clean

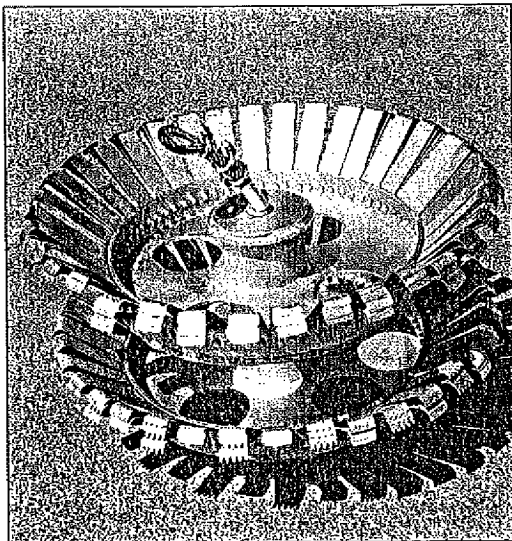


Figure 2-6 Scraper unit with specially tempered steel blades

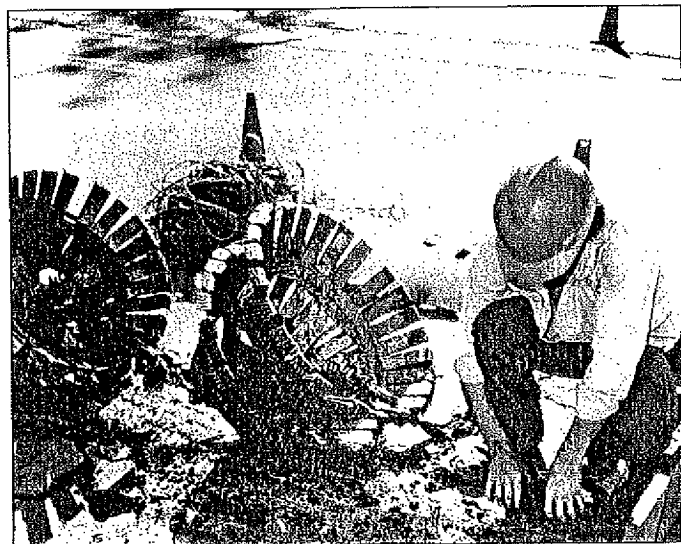


Figure 2-7 Several scraper units assembled together in the field

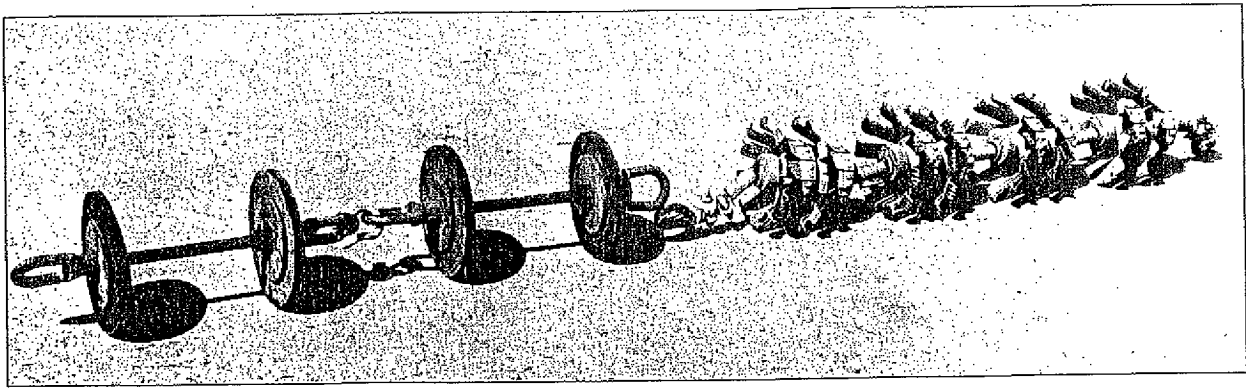


Figure 2-8 A series of disks to act as a hydraulic piston, pulling scrapers through the line

a pipeline will depend, to a great extent, on how dirty the water is. Sufficient water must be added behind the cleaner to fill the pipe as the cleaner moves ahead.

The water that passes the cleaner scours the wall of the pipe and washes ahead the material that is scraped off the pipe. While the velocity of water ahead of the cleaner is independent of cleaner speed, it must be sufficient to remove the deposits. Experience indicates that a flow velocity ahead of the cleaner of between 2 and 10 ft/sec (0.6 and 3.0 m/sec) is required to remove the deposits. In a small pipe, because a relatively large amount of material must be moved for the volume of the pipe, a relatively high velocity is required.

The cleaning water and deposits must be discharged from the pipeline in a way that avoids creating a nuisance or environmental problem. A sandbag dam can be constructed to create a pond for particle settlement (Figure 2-9). This allows the clean water to be decanted to a storm drain while any solid material is collected and properly disposed of. Another method is to pipe the water to a dump truck, catching the solids in the truck and allowing the water to run off into a storm drain.

**Operating procedures.** The following steps describe the operating procedures commonly used when cleaning water pipes with mechanical scrapers.

1. Review drawings of lines to be cleaned. Identify logical entry and exit points for the cleaning tool. Note all valves, service connections, and other components that must be opened or closed to isolate the line to be cleaned. Conduct C-factor tests (if not previously completed) to determine the condition of the line.
2. Excavate and install a spool piece at each entry and exit point (Figure 2-10). Obtain a sample of deposits in the line and determine their average thickness.
3. Determine source of cleaning water (e.g., reservoir, feeder mains, parallel lines, etc.). Cleaning for lines 12 in. (300 mm) in diameter and smaller may require auxiliary pumps to provide adequate flow and pressure; flow and pressure within the system generally are adequate to clean mains over 12 in. (300 mm) in diameter.
4. Provide suitable means for disposing water and removed solids.
5. Notify all affected commercial and residential customers, as well as fire department officials, of the scheduled interruption of service.

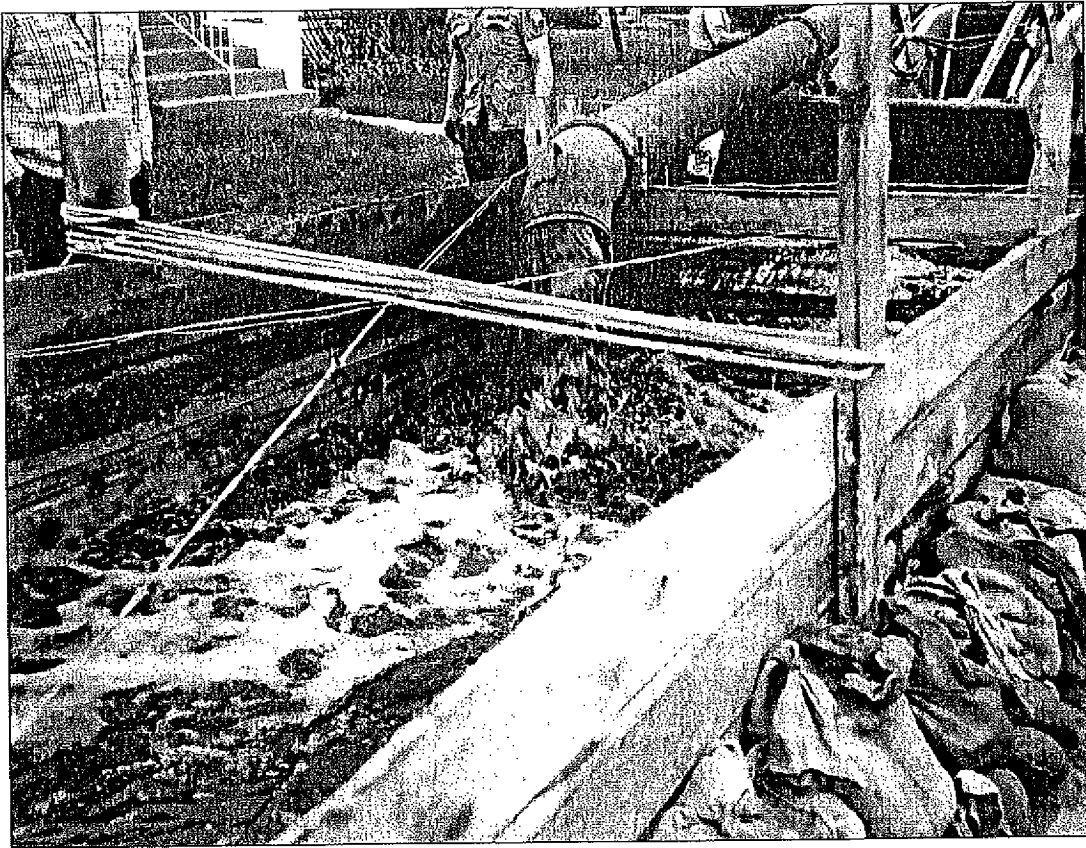


Figure 2-9 A sandbag dam to create a pond for particle settling

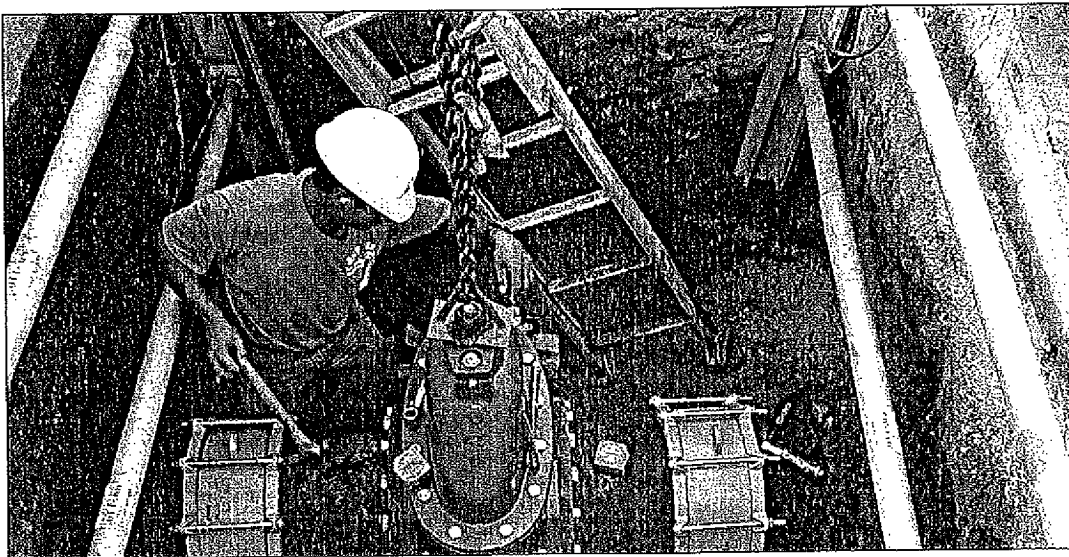


Figure 2-10 A spool piece installed at the entry and exit points for mechanical scrapers

6. Completely isolate the section to be cleaned. Close valves slowly to prevent water hammer.
7. Drain the line to be cleaned.
8. Open entry and exit points and remove spool piece sections. At the entry point, install a spool piece with the cleaning device inside. At the exit point, install discharge piping to bring discharged water up to ground level. Connect a water manifold with a throttle valve to control the rate of travel of the cleaning device.
9. Initiate the required flow into the main, and control speed with a bypass, blowoff valve.
10. Complete the cleaning operation.
11. Reclaim the cleaning device at the exit spool.
12. Repeat additional cleaning passes, as required.
13. Remove the insertion and retrieval sections, and replace permanent spool sections. Backfill and complete other necessary maintenance.
14. Flush and disinfect the line, as required. Conduct tests to determine its C factor following cleaning.
15. Return the line to service.

**Advantages.** Principal advantages of this method include

- Ability to clean long stretches of heavily deposited pipe at 2 to 10 ft/sec (0.6 to 3.0 m/sec) in a single, continuous operation
- Flexibility to negotiate standard bends (with maximum radius equal to 1½ pipe diameters) and elbows, inclined and vertical pipe sections, and to pass line-size gate valves, ball valves, tees, and corporation taps
- Ability to clean water mains with minimal excavation points
- Capability to restore water mains to C factors comparable to newly installed, unlined pipe

## CLEANING BY POWER BORING

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Power boring is a cleaning method using any hydraulically powered device capable of removing tuberculation and encrustation from cast-iron, ductile-iron, and steel pipe from 3 in. (76 mm) in diameter and above. This process is normally carried out in lengths of 400 ft (121 m) or greater. This cleaning method is described in the following paragraphs.

### Rack-Feed Boring Equipment

A rack-feed boring machine (Figure 2-11) is a compact, diesel-powered unit that uses hydraulic pressure to deliver up to 31 horsepower (23.1 kW) to a boring head. The boring head is designed to accommodate spring steel boring rods 15 ft (4.6 m) long fitted with spring-loaded quick-connects for connecting rods into suitable lengths for cleaning various lengths of pipe (Figure 2-12). The end of a boring rod assembly is fitted with a spring steel cutter blade or other cleaning tool, which rotates at 750 rpm through the pipe. (See Figure 2-13.) This cleaning process is conducted against a controlled, upstream water flow to flush loosened debris from the pipe.



## Chapter 3

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# Lining Techniques

A water utility may decide to line its distribution system pipes in response to a number of problems, such as those described in chapter 1. Lining a pipeline can eliminate the need for frequent flushing. Where leakage is a problem, linings have been installed to reduce or eliminate leaks through corroded areas of pipe or bad joints. A smooth lining in a corroding pipe helps to maximize hydraulic carrying capacity and minimize pumping costs. Additionally, some lining systems can correct structural failures, bridge breaks, and missing sections in corroded pipe, thus restoring service through a continuous pipeline.

In-place lining of water mains can be accomplished by one or more of the following general methods:

- Cement-mortar lining
- Epoxy lining
- Slip-lining
- Modified slip-lining
- Cured-in-place lining
- Structural lining
- Internal joint seals
- Pipe bursting

Internal joint seals and pipe bursting methods are discussed in chapters 4 and 5.

Refer to AWWA C651, Disinfecting Water Mains, for guidance on procedures for disinfecting pipelines before returning them to service.

## CEMENT-MORTAR LINING

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When alkaline-containing water comes in contact with iron, a chemical inhibitor against oxidation forms. Because the cement and sand in cement-mortar lining is porous, water can penetrate through the lining to the pipe wall, becoming alkaline in

the process. Consequently, pipe that is lined with cement mortar is protected from oxidation because of the composition of the portland cement.

Cement-mortar linings were first installed in existing pipelines using the centrifugal process in the mid-1930s. However, this method was limited to pipelines large enough for a person to enter. In the 1960s, remote lining processes were introduced. Today, cement mortar is applied to new ductile-iron pipes and most new steel pipes before installation, making this method a standard in the water industry.

Cement mortar is applied to the pipe wall by the rotating head of an electric or air-powered machine. The machine is placed in the pipe at 300 to 1,500 ft (92 to 458 m) intervals, depending on pipe diameter, valve locations, bends, profile, and alignment (Figures 3-1, 3-2, and 3-3). Mortar is pumped to the lining machine through high-pressure hoses or is mechanically delivered. The lining machine is equipped with rotating trowels or a conical drag trowel positioned just behind the dispensing head. As the machine moves through the pipe, it leaves a smooth, troweled (nonstructural) finish.

A reinforced cement-mortar lining may also provide structural improvement. Initially a 0.5-in. (13-mm) thick cement-mortar lining is placed on the pipe wall in the conventional manner without troweling. Using overlapping joints, a wire mesh is placed against the lining, which is then covered by another 0.5-in. (13-mm) troweled cement-mortar lining. The remaining steps in the process are the same as those for an unreinforced lining. This process is generally used to rehabilitate steel lines in poor condition due to extensive corrosion and in lines large enough for a person to enter. The reinforcing wire holds the cement mortar together, even if large holes develop in the pipeline. While this method will not necessarily prevent a blowout, it will extend the useful life of a pipeline.

## Operating Procedures

The following steps describe the common operating procedures used when lining a main with nonstructural cement mortar.

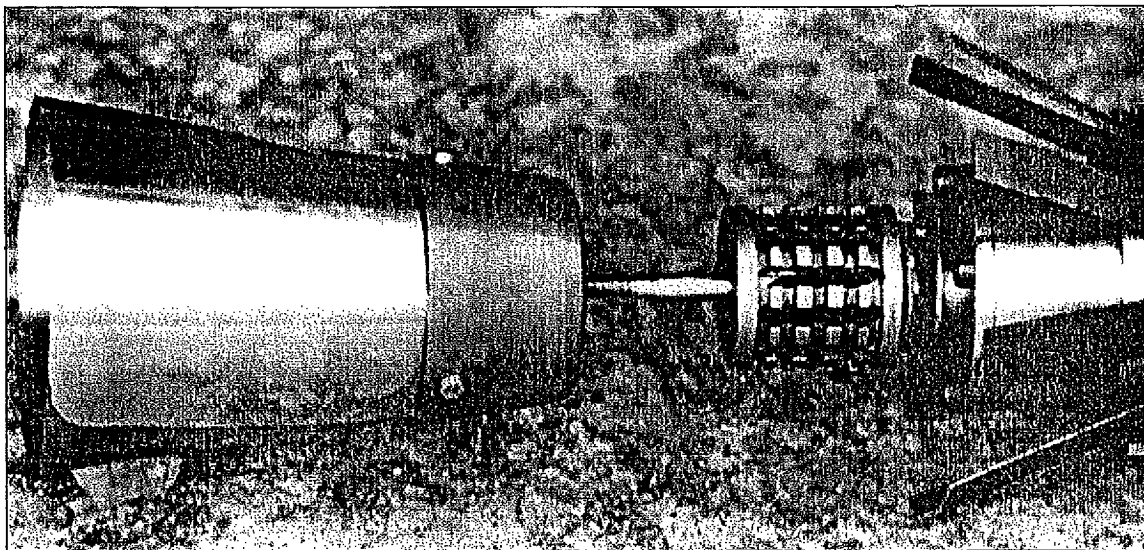


Figure 3-1 A cement-mortar lining machine for use in small-diameter pipe



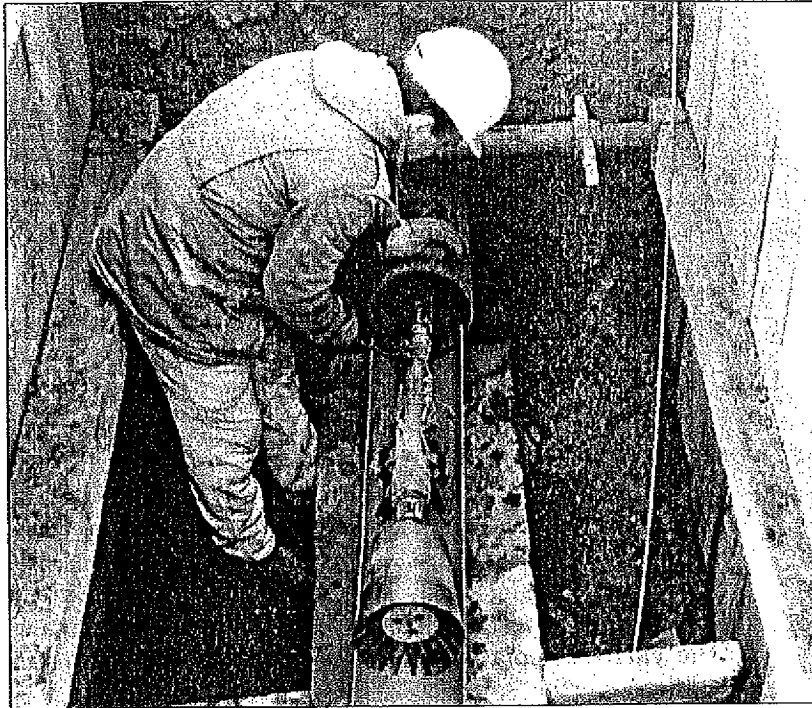


Figure 3-2 Introduction of a small lining machine

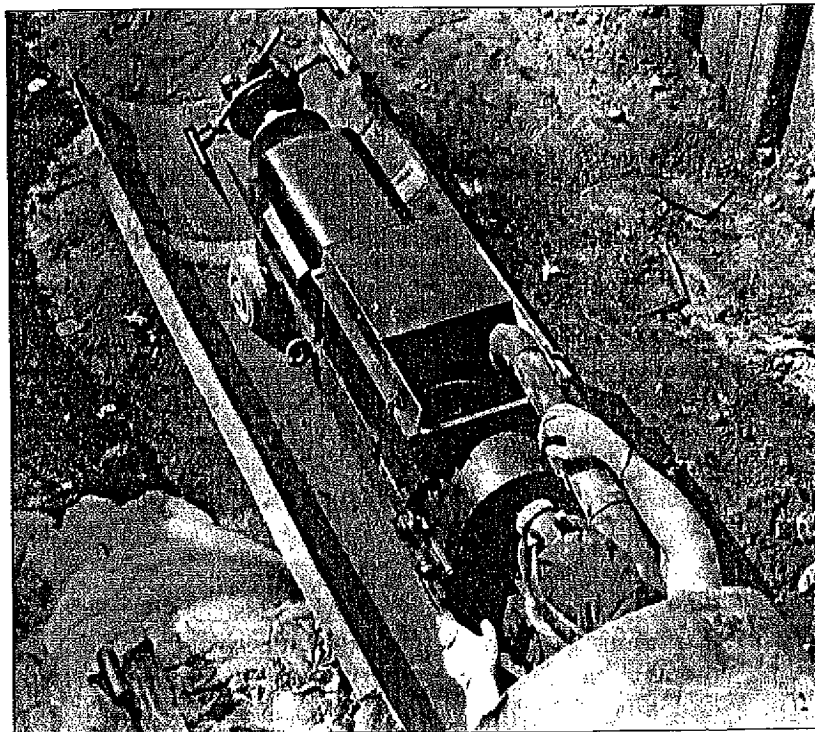


Figure 3-3 A cement-mortar lining machine for use in large-diameter pipe



1. Topography, bends, in-line valves, reduced-diameter in-line valves, and traffic conditions all influence the locations of excavations for access points to allow introduction of the lining equipment. These conditions also affect the method used to clean the pipe. All 22.5°, 45°, and 90° bends must be removed for 12-in. (300-mm) diameter pipe and smaller; 45° and 90° bends must be removed in 16-in. (400-mm) diameter pipe. Pipe 20-in. (500-mm) diameter and larger may require excavations near the bends or removal.

Full-diameter line valves must be removed and replaced, or the bonnets removed to clean the cement mortar from the interior of the valve if the pipe is too small for a person to enter. In large pipe, personnel can clean the valve interior from inside the pipe. Depending on their size, reduced-diameter or obstructed line valves may require removal or excavations on each side of the valves to allow lining.

2. The pipeline is generally dewatered by gravity and/or blowoffs, which remove most of the water. The contractor can then remove any remaining water lying in low spots with rubber squeegees pulled by winch through the pipe. At this time, inspection usually determines whether any branch valves are leaking. If a valve fails to stop water from entering the pipe to be lined, it is reexercised. If the leakage continues, a seal is installed or the valve is replaced. The pipe must be free of water when lining with cement mortar.
3. Cast-iron pipe is cut with a squeeze-type cutter, guillotine saw, handheld mechanical saw, or traveling saw, and a 4- to 5-ft (1.0- to 1.5-m) section of pipe is removed. Steel pipe is cut by torch, and a half cap is removed. Mechanical couplings are used for reconnecting cast-iron pipe, and butt straps are used to reconnect steel pipe.
4. A mixing van or concrete batch plant is located near the access hole where a cement-mortar mixture, consisting of one part silica-type sand and one part type II portland cement, is prepared. The mixed mortar is then delivered to the lining machine by one of several methods, depending on the pipe diameter.
5. In 4- to 24-in. (100- to 600-mm) diameter pipe (sometimes larger), the mortar is pumped through high-pressure hoses to the lining machine. Specially designed winches pull the lining machine through the pipe at a constant speed, ensuring a uniform lining thickness.
6. Mechanical feeding equipment shuttling between the access excavation (where the mortar is mixed) and the lining machine delivers mortar to the lining-machine hopper. The lining-machine operator then regulates the mortar application. Mechanically driven rotating trowels are used with this manually operated equipment.
7. Consumers' service lines and laterals less than 2 in. (50 mm) in diameter must be cleared after the lining application. This is done about 1 hr after the lining is completed, using compressed air to blow open the service line at the connection to the main. Laterals over 2 in. (50 mm) in diameter are not plugged by centrifugal lining and do not require excavation or blow back.
8. Water can be introduced into the line without pressure to allow curing 24 hr after completing the lining. The main can then be chlorinated, tested, and

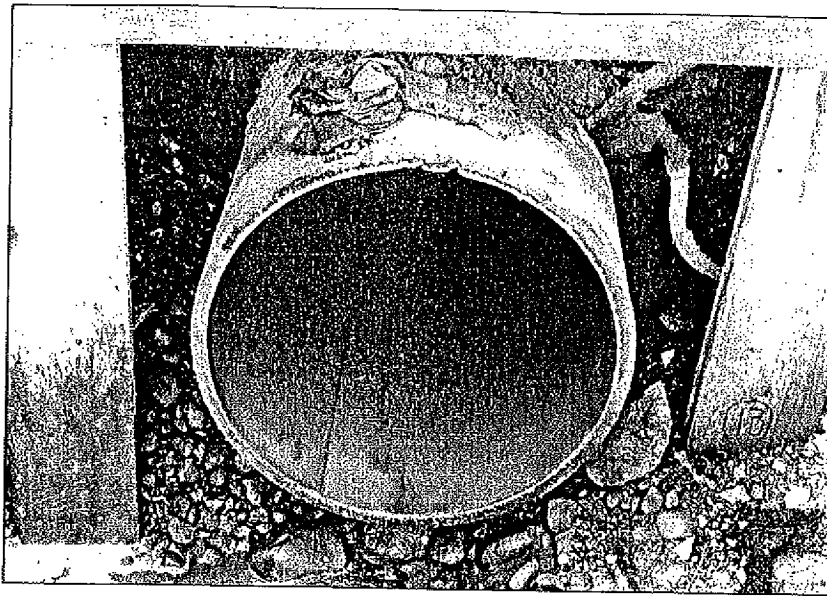


Figure 3-4 A pipe ready to be returned to service four to seven days after cement-mortar lining

returned to service. (Discharge water should be disposed of in accordance with local ordinances. Chlorine may need to be neutralized and the pH adjusted before discharge. Mains with low flow may experience high pH problems for a short time after being returned to service.) Most distribution mains are returned to service between four and seven days after lining (Figure 3-4), depending on valve locations and disinfection requirements.

9. AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place—4 in. (100 mm) and Larger, covers cement-mortar lining of pipelines from 4 in. (100 mm) to 144 in. (3,658 mm) in diameter.

American Water Works Association

**ANSI/AWWA C602-00**

(Revision of ANSI/AWWA C602-95)



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**AWWA STANDARD**  
FOR  
**CEMENT-MORTAR LINING**  
**OF WATER PIPELINES IN PLACE—**  
**4 IN. (100 mm) AND LARGER**



**Return to  
List of Standards**

*Effective date: January 1, 2001.*

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*This edition approved June 11, 2000.*

*Approved by American National Standards Institute October 6, 2000.*

**AMERICAN WATER WORKS ASSOCIATION**

6666 West Quincy Avenue, Denver, Colorado 80235

## AWWA Standard

This document is an American Water Works Association (AWWA) standard. It is not a specification. AWWA standards describe minimum requirements and do not contain all of the engineering and administrative information normally contained in specifications. The AWWA standards usually contain options that must be evaluated by the user of the standard. Until each optional feature is specified by the user, the product or service is not fully defined. AWWA publication of a standard does not constitute endorsement of any product or product type, nor does AWWA test, certify, or approve any product. The use of AWWA standards is entirely voluntary. AWWA standards are intended to represent a consensus of the water supply industry that the product described will provide satisfactory service. When AWWA revises or withdraws this standard, an official notice of action will be placed on the first page of the classified advertising section of *Journal AWWA*. The action becomes effective on the first day of the month following the month of *Journal AWWA* publication of the official notice.

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# Foreword

*This foreword is for information only and is not part of AWWA C602.*

## **I. Introduction.**

I.A. *Background.* Cement-mortar lining provides the interior of a ferrous-metal pipe with a smooth finish that protects it from corrosion and tuberculation. The lining can significantly retard the recurrence of these problems in previously used pipe if the pipe has been properly cleaned and repaired before application of the lining. Furthermore, the lining can increase the pipeline's carrying capacity because of the reduction in friction resulting from streamlining surface irregularities.

The use of cement mortar as a protective lining for water mains was reported by the French Academy of Science in 1836. Fourteen years later, cement-lined, coated, sheet-metal pipe was introduced in the United States. Some of the early pipelines were in use for the better part of a century, but it was not until the 1930s that a practical method was developed for lining pipe in place.

The first field trial of in-place cement-mortar lining (of pipe that had been in service) was conducted in Jersey City, N.J., in 1933. The pipe was a short section 72 in. (1,830 mm) in diameter. The favorable outcome of the trial led to the cleaning and lining of more than 27,000 ft (8,230 m) of aged, 48-in. (1,220-mm) riveted-steel pipe supplying Newark, N.J. The lining stopped all leakage and, as a result of streamlining the surface over large rivets, also increased the Hazen-Williams flow coefficient by 14 points (estimated by the engineer).

For many years, the smallest-diameter pipe that could be reconditioned by the centrifugal process was 24 in. (600 mm), because a man was required to ride the lining machine through the pipe. In 1950, a remote-control centrifugal-lining machine was introduced that made in-place lining of progressively smaller-diameter pipe possible. Presently, pipelines ranging from 4 in. (100 mm) to 28 ft (9.2 m) in diameter can be cleaned and cement-mortar lined in place.

I.B. *History.* The first American Water Works Association (AWWA) standard for cement-mortar lining of pipe in place was published in 1939 as part of AWWA C205-41 (formerly 7A-7-41), Standard for Cement-Mortar Protective Lining and Coating for Steel Water Pipe. That standard was primarily concerned with in-plant lining and coating, a completely different process from in-place lining. Therefore, in 1951, the in-place lining portion was withdrawn and expanded into a separate

standard under the direction of the late H.A. Price, who authored most of the new document. That standard, AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place—Sizes 16 In. and Larger, was approved as tentative in 1954 and made standard in 1955.

In 1962, Price suggested to the AWWA Steel Water Pipe Manufacturers Technical Advisory Committee (SWPMTAC) that AWWA C602-55 should be revised in view of the extended competence of the centrifugal-lining process, which at that time included pipe as small as 4 in. (100 mm) in diameter. The assignment was given to SWPMTAC Subcommittee 8 and resulted in the revision of the standard adopted and published in 1967.

In 1972, the standard was again considered for revision to reflect the state of the art of in-place cement-mortar lining. The more frequent use of in-place cement-mortar lining in new, large-diameter steel pipelines prompted the committee to note some of the standard procedures used in this application. This edition was approved on Jan. 25, 1976. The standard was revised in 1983, 1988, and 1995. This edition was approved on June 11, 2000.

*I.C. Acceptance.* In May 1985, the US Environmental Protection Agency (USEPA) entered into a cooperative agreement with a consortium led by NSF International (NSF) to develop voluntary third-party consensus standards and a certification program for all direct and indirect drinking water additives. Other members of the original consortium included the American Water Works Association Research Foundation (AWWARF) and the Conference of State Health and Environmental Managers (COSHEM). The American Water Works Association (AWWA) and the Association of State Drinking Water Administrators (ASDWA) joined later.

In the United States, authority to regulate products for use in, or in contact with, drinking water rests with individual states.\* Local agencies may choose to impose requirements more stringent than those required by the state. To evaluate the health effects of products and drinking water additives from such products, state and local agencies may use various references, including:

1. An advisory program formerly administered by USEPA, Office of Drinking Water, discontinued on Apr. 7, 1990.
2. Specific policies of the state or local agency.

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\*Persons in Canada, Mexico, and non-North American countries should contact the appropriate authority having jurisdiction.

3. Two standards developed under the direction of NSF: ANSI<sup>\*</sup>/NSF<sup>†</sup> 60, Drinking Water Treatment Chemicals—Health Effects, and ANSI/NSF 61, Drinking Water System Components—Health Effects.

4. Other references, including AWWA standards, *Food Chemicals Codex*, *Water Chemicals Codex*,<sup>‡</sup> and other standards considered appropriate by the state or local agency.

Various certification organizations may be involved in certifying products in accordance with ANSI/NSF 61. Individual states or local agencies have authority to accept or accredit certification organizations within their jurisdiction. Accreditation of certification organizations may vary from jurisdiction to jurisdiction.

Annex A, "Toxicology Review and Evaluation Procedures," to ANSI/NSF 61 does not stipulate a maximum allowable level (MAL) of a contaminant for substances not regulated by a USEPA final maximum contaminant level (MCL). The MALs of an unspecified list of "unregulated contaminants" are based on toxicity testing guidelines (noncarcinogens) and risk characterization methodology (carcinogens). Use of Annex A procedures may not always be identical, depending on the certifier.

AWWA C602-00 does not address additives requirements. Thus, users of this standard should consult the appropriate state or local agency having jurisdiction in order to:

1. Determine additives requirements, including applicable standards.
2. Determine the status of certifications by all parties offering to certify products for contact with, or treatment of, drinking water.
3. Determine current information on product certification.

**II. Special Issues.** This standard has no applicable information for this section.

**III. Use of This Standard.** AWWA has no responsibility for the suitability or compatibility of the provisions of this standard to any intended application by any user. Accordingly, each user of this standard is responsible for determining that the standard's provisions are suitable for and compatible with that user's application.

---

<sup>\*</sup>American National Standards Institute, 11 W. 42nd St., New York, NY 10036.

<sup>†</sup>NSF International, 789 N. Dixboro Rd., Ann Arbor, MI 48105.

<sup>‡</sup>Both publications available from National Academy of Sciences, 2102 Constitution Ave. N.W., Washington, DC 20418.

III.A. *Purchaser Options and Alternatives.* The following information should be included in the purchaser's specifications:

1. Project. Diameter, length, and location of pipeline, including plan and profile drawings when available; limits of pipeline shutdowns, if service requirements make these limits necessary; location of access manholes; location, type, and size of valves; location of interconnecting pipelines, hydrant branches, and service pipes; location of fittings and restrictions that could interfere with cleaning and lining operations; location, diameter, and connections of temporary bypass, if required; and all other details of the pipe within the scope of the contract between the purchaser and the constructor.

2. Thickness of cement-mortar lining. Nominal thickness of cement-mortar lining required (Sec. 4.4.5).

3. Services provided by purchaser. Description of all services or field operations to be performed by the purchaser, such as locating the main to be cleaned and lined; removal and replacement of line valves; operation of valves; tagging all valves that separate the main to be cleaned and lined from the water system to prevent accidental opening; shutting off all inflow of water from connecting pipelines; locating and operating blowoffs; connecting and disconnecting temporary bypasses to customer services; obtaining all permits required for the work; handling all customer contacts; disinfection; and conducting flow tests.

4. Additional work to be performed by constructor. Description of work, including repairs to deteriorated pipe; extra thickness of lining over the rivet heads and lockbar seams; excavation, backfill, and resurfacing work at access excavations; method of opening and closing access openings in the pipeline; supplying, laying, and removing temporary bypass pipe; and operation of main-line or blowoff valves.

NOTE: When it is necessary to repair deteriorated pipe before lining, the pipe will be repaired by the purchaser or under provisions of the contract between the purchaser and the constructor.

5. Water for cleaning and lining operations. Location of water sources, method of supplying, quantity available, and pressure information.

6. Disposal of cleaning water and debris. Requirements for the disposal of cleaning water, old lining, and other debris; instructions regarding permits from the responsible authorities.

7. Permissible cement-mortar materials. Preference for, or any restrictions on, type of portland cement or admixtures to be used in lining mortar.

8. Purchaser options. Options that may be included in the purchaser's specifications after reviewing the following items in the sections noted:

- a. Affidavit of compliance (Sec. 6.3).
- b. Portland cement (Sec. 4.3.1).
- c. Use of admixtures (Sec. 4.3.2, 4.4.1, and 4.4.2).
- d. Mortar lining thickness (Sec. 4.4.5).
- e. Access openings (Sec. 4.5.1).
- f. Traffic control (Sec. 4.5.1).
- g. Surface finish (Sec. 4.5.4).
- h. Cleaning of valves; new bolts and gaskets (Sec. 4.5.6.1 and 4.5.6.2).
- i. Curing by purchaser (Sec. 4.5.7.3).
- j. Temporary bypass to customers (Sec. 4.6).
- k. Disinfection of temporary bypass (Sec. 4.6.2).
- l. Leaking valves (Sec. 4.7.2).
- m. Access openings for lining for new pipe (Sec. 4.8.1).
- n. Surface finish for new pipe (Sec. 4.8.4).

III.B. *Modification to Standard.* Any modification to the provisions, definitions, or terminology in this standard must be provided in the purchaser's specifications.

**IV. Major Revisions.** The major changes made to the standard in this edition include the following:

1. The title of the standard was revised.
2. Definitions (Sec. 3) have been revised.
3. References to pozzolanic materials have been removed from Sec. 4.4.
4. Table 1 on recommended thicknesses of cement–mortar linings has been revised.
5. Sec. 5.1 has been revised for sampling and testing frequency and strength of lining.

**V. Comments.** If you have any comments or questions about this standard, please call the AWWA Volunteer and Technical Support Group, (303) 794-7711 ext. 6283, FAX (303) 795-7603, or write to the group at 6666 W. Quincy Ave., Denver, CO 80235.

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# **AWWA STANDARD FOR CEMENT-MORTAR LINING OF WATER PIPELINES IN PLACE— 4 IN. (100 mm) AND LARGER**

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## **SECTION 1: GENERAL**

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### **Sec. 1.1 Scope**

This standard describes the requirements for the materials and application of a cement-mortar lining to the inside surface of 4-in. (100-mm) and larger new and old steel, ductile-iron, and cast-iron water pipelines that have been previously installed, as well as related work. The application requirements are (1) that the lining of all straight pipe sections and long radius bends shall be performed by a machine that progresses uniformly through the pipe, applies cement mortar against the pipe surfaces, and is provided with an attachment for mechanically troweling the mortar to obtain a smooth lining of uniform thickness with smooth transitions over joints; and (2) that the lining of bends, specials, and areas adjacent to valves shall be machine sprayed and hand troweled or, where machine placement is impractical, shall be performed manually.

### **Sec. 1.2 Purpose**

The purpose of this standard is to define the minimum requirements for cement-mortar lining of water pipelines, 4 in. (100 mm) and larger, in place, including materials, design, and methods for construction.

### Sec. 1.3 Application

This standard can be referenced in specifications for cement-mortar lining of water pipelines in place, 4 in. (100 mm) and larger.

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## SECTION 2: REFERENCES

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This standard references the following documents. In their latest editions, these documents form a part of this standard to the extent specified within this standard. In any case of conflict, the requirements of this standard shall prevail.

ASTM\* C40—Standard Test Method for Organic Impurities in Fine Aggregates for Concrete.

ANSI†/ASTM C143—Standard Test Method for Slump of Hydraulic Cement Concrete.

ANSI/AWWA C500—Standard for Metal-Seated Gate Valves for Water Supply Service.

ANSI/AWWA C504—Standard for Rubber-Seated Butterfly Valves.

ANSI/AWWA C509—Standard for Resilient-Seated Gate Valves for Water Supply Service.

ASTM C150—Standard Specification for Portland Cement.

ASTM C494—Standard Specification for Chemical Admixtures for Concrete.

ASTM E11—Standard Specification for Wire Cloth and Sieves for Testing Purposes.

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## SECTION 3: DEFINITIONS

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The following definitions shall apply in this standard:

1. *Constructor*: The party that provides the work and materials for placement or installation.
2. *Purchaser*: The person, company, or organization that purchases any materials or work to be performed.

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\*American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

†American National Standards Institute, 11 W. 42nd St., New York, NY 10036.

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## SECTION 4: REQUIREMENTS

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### Sec. 4.1 Workmanship

All work shall be performed by trained personnel under the supervision of experienced persons skilled in the application of cement-mortar lining to pipelines in place.

### Sec. 4.2 Equipment

The constructor's equipment for cleaning, applying, and troweling cement-mortar in the pipe and for curing the cement-mortar lining shall be so designed and manufactured and in a condition to permit the workers to follow the procedure and obtain the results prescribed in this standard.

### Sec. 4.3 Materials for Construction

4.3.1 *Portland cement.* Portland cement shall conform to the requirements of ASTM C150 for type I or type II cement, or as otherwise specified by the purchaser.

4.3.2 *Admixtures.* To improve workability, density, and strength in the mortar, admixtures conforming to ASTM C494 may be used at the option of the constructor, unless otherwise required by the purchaser's specifications, provided that the ratio of admixture to portland cement does not exceed that used in the qualification tests of ASTM C494. No admixtures shall be used that would have a deleterious effect on potable water flowing in the pipe after the lining has been placed.

4.3.3 *Sand.* Sand shall consist of inert granular material. The grains shall be strong, durable, and uncoated. The sand shall be well graded and shall pass a No. 16 mesh screen, with not more than 5 percent passing a US Standard Sieve No. 100. (For screen and sieve sizes, refer to ASTM E11.)

4.3.3.1 *Deleterious substances in sand.* Sand shall be clean. The total combined weight of dust, clay, loam, lumps, shale, soft or flaky particles, mica, oil, alkali, and other deleterious substances shall not exceed 3 percent of the total combined weight of the deleterious substances and the sand containing them. In addition, the following limitations shall apply to specific substances:

Substance	Maximum Allowable Percentage by Weight
Shale	1
Clay lumps	1
Mica and deleterious substances other than shale and clay lumps	2

4.3.3.2 *Organic impurities.* Sand shall not show a color value darker than the "reference standard color solution" prepared as required in ASTM C40.

4.3.4 *Water.* Water for mixing mortar shall be clean and free of mud, oil, and injurious amounts of organic material or other deleterious substances. Potable water shall be used.

## **Sec. 4.4 General Cement-Mortar Lining Design**

4.4.1 *Composition.* Mortar for the lining shall be composed of cement, sand, and water that have been well mixed and are of such consistency as to produce a dense, homogeneous lining. Unless otherwise specified by the purchaser, the mortar may also include admixtures.

4.4.2 *Proportions.* The approximate proportions of cement and sand in the mortar for the lining shall be 1 part of portland cement to 1-1½ parts of sand by volume. The exact proportions shall be determined by the characteristics of the sand used. Admixtures (Sec. 4.3.2), if added, shall be used in strict compliance with the manufacturer's printed recommendations.

4.4.3 *Water content.* The water content shall be the minimum quantity that produces a workable mixture, allowing for moisture collecting on the interior of the pipe surfaces. Slump tests should be made periodically on freshly mixed mortar immediately before the mortar is conveyed to the lining machine. The tests shall be made in accordance with ANSI/ASTM C143. Nominal slumps of cement-mortar mixes for application of linings are indicated in Figures 1 and 2.

4.4.4 *Mixing.* Mortar shall be mixed long enough to obtain maximum plasticity. The mortar shall be used before initial set.

### **4.4.5 Thickness of lining.**

4.4.5.1 *General requirement.* The lining shall be uniform in thickness within the allowable tolerance, except at joints or deformations in the pipeline. Cement-mortar lining thickness shall be in accordance with Table 1, unless otherwise specified by the purchaser. If a cement-mortar lining thickness greater than ½ in. (13 mm) is required by the purchaser, the constructor shall have the option to apply the mortar lining in multiple applications. The thickness measuring device shall be agreed on by the constructor and purchaser.

4.4.5.2 *Thickness over rivets and lockbar.* The thickness of cement-mortar lining over the top of rivet heads and lockbar longitudinal seams of steel pipe shall not be less than ⅛ in. (3.2 mm), unless otherwise specified by the purchaser.

## Sec. 4.5 Methods for Construction of Rehabilitated Pipelines

4.5.1 *Access openings—general requirements.* All access openings necessary for the lining work shall be prepared and closed by the constructor, unless otherwise specified in the purchaser's specifications. Traffic control shall be as defined in the purchaser's specifications.

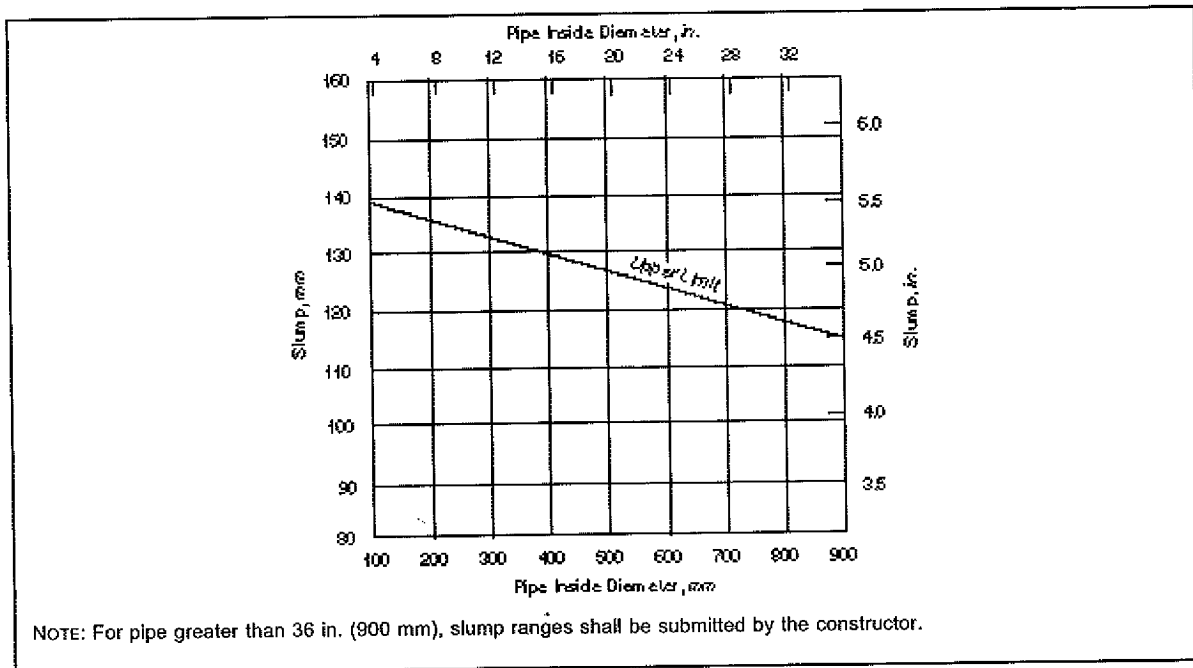


Figure 1 Nominal slumps of cement-mortar mixes for application of pipe linings using pump feed

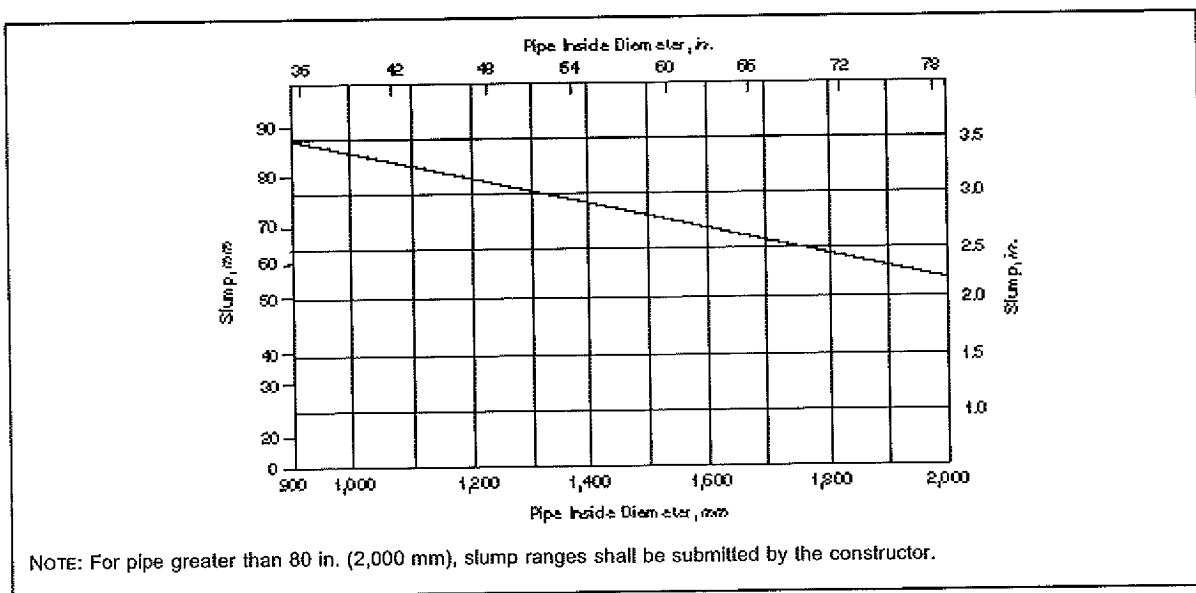


Figure 2 Slump limits of cement-mortar for application of pipe linings using mechanical feed

Table 1 Recommended thickness of cement-mortar lining for pipelines in place

Table 1. Recommended thickness of carbon steel pipe									
Pipe Diameter		Type of Pipe							
		Old Steel		Old and New Gray Cast Iron and Ductile Iron		New Steel		Tolerance	
		<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>
4-10	100-250	$\frac{5}{16}$	8	$\frac{3}{16}$	4.8	$\frac{1}{4}$	6.3	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
11-23	280-580	$\frac{3}{8}$	10	$\frac{1}{4}$	6.4	$\frac{5}{16}$	8	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
24-36	600-900	$\frac{7}{16}$	11.1	$\frac{5}{16}$	8	$\frac{3}{8}$	10	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
≥36	≥900	$\frac{9}{16}$	14.3	$\frac{5}{16}$	8	$\frac{1}{2}$	13	$-\frac{1}{16}, +\frac{3}{16}$	-1.6, + 4.8

NOTE: For badly deteriorated pipe or abnormal use, the purchaser should specify a greater thickness of lining as engineering judgment indicates.

#### 4.5.2 Preparation of pipe surface.

4.5.2.1 Cleaning interior. The interior surfaces of pipe to be lined shall be cleaned by methods approved by the purchaser to remove corrosion products; chemical or other deposits; loose and deteriorated remains of old lining materials; oil; grease; and accumulations of water, dirt, and debris. When the method of cleaning the pipe does not include the use of water, laterals less than 2 in. (50 mm) in diameter shall be cleared after cleaning by backflushing with air or water wherever necessary or as required by the purchaser.

4.5.2.2 Lockbar or riveted steel pipe. The area adjacent to the lockbar or rivets shall be inspected after initial cleaning and may require cleaning by hand before lining.

#### 4.5.3 Machine application of mortar lining.

4.5.3.1 Cleanup ahead of machine. Immediately before the lining machine travels through a pipeline, all foreign material shall be removed. This includes sand and loose mortar that might have accumulated since the preparation of surfaces was completed.

4.5.3.2 Lining procedure. The lining shall be applied in one or more courses by a machine traveling through the pipe and distributing the mortar uniformly across the full section and long radius bends of the pipe. The discharge shall be from the rear of the machine so that the newly applied mortar will not be marked. The rate of travel of the machine and the rate of mortar discharge shall be mechanically regulated to produce a smooth surface and uniform thickness throughout. The mortar shall be densely packed and adhere wherever applied; there shall be no injurious rebound.

4.5.3.3 Procedure at rivets and open joints. In steel pipe 24 in. (600 mm) and larger in diameter, mortar may be applied manually ahead of the lining machine for uniform thickness over the line of rivet heads and where steel plates overlap. Open joints shall be packed with mortar before lining where necessary to provide a smooth surface across the joint. The mortared areas shall be moist and free of surface checking before proceeding with the machine lining.

4.5.4 *Surface finish.* The mortar lining in all pipe of the diameters described in this standard shall be mechanically troweled except for the places where hand troweling or the placement of an untroweled lining is expressly allowed by this standard (Sec. 4.5.4.2).

4.5.4.1 Troweled linings. The lining machine shall be provided with attachments for mechanically troweling the mortar. Both the application and troweling of the mortar shall take place at the rear of the machine so that the freshly placed and troweled mortar will not be damaged. The trowel attachment shall be such that the pressure applied to the lining will be uniform and produce a lining of uniform thickness with a smooth, finished surface, free of spiral shoulders. The finished surface of machine-placed troweled linings in pipe 24 in. (600 mm) and larger in diameter shall be examined as described in Sec. 4.5.4.1.1 and shall meet the performance criteria in Sec. 5.2.7.

4.5.4.1.1 Procedures. In the reach of pipe 24 in. (600 mm) and larger in diameter that has been lined and troweled in each day's run, 10 places shall be selected in straight sections of the pipe according to a predetermined sampling method agreed on by the purchaser and constructor. In each of the 10 places, a 12-in. (300-mm) straightedge shall be laid parallel to the axis of the pipe. In 9 of the 10 places, the space between the lined surface and the straightedge shall at no point be greater than  $\frac{1}{16}$  in. (1.6 mm) for smooth-bore pipe in good condition and  $\frac{1}{8}$  in. (3.2 mm) for pipe with a rough or irregular interior. This test shall not apply in places where the unlined pipe is too rough or irregular for the required tolerances to be met by machine lining.

4.5.4.2 Untroweled linings. The finished surface shall be smooth and regular, except that it may exhibit a slightly dimpled appearance similar to the surface of an orange. Ridges or uneven buildup caused by irregularity in the travel rate of the machine shall not be allowed.

4.5.4.2.1 Allowable untroweled lining. Untroweled cement-mortar lining is acceptable in the lining of dead-end sections, in the lining of pipe that is excessively

out of round, and in pipe 20 in. (500 mm) in diameter and smaller, when lining pipeline segments containing cocked joints, sharp bends, and angle points.

4.5.5 *Hand application of mortar lining.* Hand-placed mortar shall have a uniform surface with smooth transitions to adjacent machine-placed linings.

4.5.5.1 Allowable hand placement. In pipe 24 in. (600 mm) and larger in diameter, in places where machine placing of cement-mortar lining is impractical (such as sharp bends, specials, or areas closely adjacent to valves), lining shall be performed by hand. The purchaser may permit the correction of any defect by hand application.

4.5.5.2 Materials. Cement mortar for handwork shall be of the same materials as the mortar for machine-placed lining.

4.5.5.3 Cleaning. Areas to be lined shall be cleaned as specified in Sec. 4.5.2 and, if necessary, shall be moistened with water immediately before placing the hand-applied mortar.

4.5.5.4 Troweling. Steel finishing trowels shall be used for the hand application of cement mortar, except at bends. The outer edges of hand-troweled areas may be brushed to reduce the abutting offset.

4.5.5.5 Timing. All hand-finishing work in a section of pipeline shall be completed within 24 hr after completion of the machine application of mortar lining to that section. If necessary, application of mortar lining by machine shall be delayed or stopped to ensure compliance with this schedule.

4.5.6 *Special requirements at laterals and service connections.* Laterals and connections to the pipe that are being lined shall not be left obstructed by the lining operations.

4.5.6.1 Pipe less than 24 in. (600 mm) in diameter. After the mortar lining has been placed, but before it takes final set, laterals and services 2 in. (50 mm) and smaller in diameter shall be cleared by backflushing with air or water wherever necessary or as required by the purchaser. The backflushing shall be performed in a manner that will not damage the freshly applied lining. Unless a lateral is to be cleaned and lined, it shall not be excavated. The constructor shall clean all interior surfaces of main-line valves after the lining machine has passed. The constructor may, with the purchaser's approval, remove the bonnets and gates from main-line gate valves to accomplish the cleaning; the bonnets and gates shall then be replaced. The constructor shall, with the purchaser's approval, remove all butterfly valves from the main line when necessary and then reinstall them after the lining operation. New



bolts and gaskets for bonnet or valve replacements meeting the requirements of the applicable AWWA valve standard (ANSI/AWWA C500, ANSI/AWWA C504, or ANSI/AWWA C509) shall be supplied by the constructor, unless otherwise provided by the purchaser's specifications.

4.5.6.2 Pipe 24 in. (600 mm) and larger in diameter. Before the lining is placed, the openings in the pipeline that lead to air valves, blowoffs, manholes, and appurtenances, as well as to laterals and connections from the pipeline, shall be temporarily covered or plugged with suitable devices. These shall be removed later without damaging the cement mortar. When working inside the pipe is impractical, the constructor may clear connecting pipelines by flushing and, with the purchaser's approval, clean gate valves by removing bonnets and gates. The constructor shall, with the purchaser's approval, remove all butterfly valves from the main line when necessary. New bolts and gaskets for bonnet or valve replacement that meet the requirements of the applicable AWWA valve standard shall be supplied by the constructor, unless otherwise provided by the purchaser's specifications.

#### 4.5.7 *Curing.*

4.5.7.1 General requirements. Curing operations shall begin immediately following completion of the machine placement of the mortar lining in a section of pipeline. The section of pipe shall be closed with airtight covers over all openings and shall be maintained in a moist condition.

4.5.7.2 Curing by constructor. When a section of pipeline has been completed, the constructor shall be responsible for curing the mortar lining until the section is filled with water by the purchaser, or until the lining has been accepted by the purchaser, but in no case for more than seven days. In the event that the purchaser cannot fill the pipeline within seven days after the lining has been placed, or within the time specified by the purchaser, the constructor may be directed to extend the curing period.

4.5.7.3 Curing by purchaser. Sections of the mortar-lined pipe shall be filled with water as soon as possible after lining operations in such a manner as not to damage the lining. There shall be no pressure on any section until the mortar lining has been in place for at least 24 hr, except for pressure induced by variations in the grade of the pipeline. The filling shall be performed by the purchaser unless the purchaser's specifications stipulate otherwise.

4.5.7.4 Sprinkling exterior. The exterior surfaces of pipe exposed to sunlight shall be sprinkled with water in the daytime during the period of lining, finishing,

and curing when sprinkling is required, as determined by the constructor or the purchaser, to prevent cracking of the lining.

## **Sec. 4.6 Temporary Bypass to Customers**

**4.6.1 General description.** Temporary bypass facilities may be required to maintain service to customers connected to pipelines being cleaned and cement-mortar lined. It shall be the purchaser's responsibility to design the bypass system, including a layout of the bypass piping, customers to be serviced, the specified bypass pipe diameter to be used in specific locations, as well as the type and locations of temporary fire hydrants. When required by the purchaser, the constructor shall provide, install, maintain, and remove temporary bypass pipelines in accordance with the purchaser's specifications.

**4.6.2 Pipe and materials.** The pipe, hose, and other materials shall be supplied by the constructor for use in conjunction with temporary bypass pipe and connections to services and laterals. These materials shall withstand the pressures indicated and all other conditions of use. The pipe and fittings shall be watertight and shall be disinfected before being put into service. Disinfection shall be performed by the constructor unless the purchaser's specifications stipulate otherwise.

**4.6.3 Procedure.** Temporary bypass facilities shall include hoses and necessary outlets and fittings to each service connection. The constructor shall provide, install, and maintain the temporary bypass lines in a safe and operative condition at all times. After service has been restored to a section of water main, the constructor shall remove the temporary bypass and related facilities and shall leave the work site in a neat and orderly condition.

**4.6.4 Supply of water to feed temporary bypass.** The purchaser shall be responsible for the availability of water at sufficient pressure and in sufficient volume to supply the bypass system. The purchaser shall provide taps or other suitable feed points to which the bypass may be connected. If there are no hydrants or aboveground taps at convenient locations for bypass connection, the purchaser shall either install outlets on the system as required or direct the constructor to install the connections.

**4.6.5 Temporary connection to customers.** Before starting any work that will affect service to customers, the constructor shall notify the purchaser in advance to allow the purchaser to notify all customers accordingly. All shutoffs to customer service lines and all connections from the bypass line to the customer service lines shall be made by the constructor. If required by the purchaser, bypass service

connections requiring excavation, cutting, or tapping shall be made by the constructor unless specifically included in the purchaser's specifications. After the pipeline has been cleaned and lined, the constructor shall clear the service lines by backflushing with air or water. Where it is impossible to clear the service line because the customer's premises cannot be entered, the constructor shall excavate and clear the service at the main. The restoration of service to the customer, including disconnection from the bypass system and reconnection to the pipeline, is the constructor's responsibility unless otherwise required by the purchaser's specifications.

## **Sec. 4.7 Contingent Work**

**4.7.1 Obstructions.** Obstructions in the pipeline that prohibit the passage of cleaning or lining equipment shall be removed by the constructor. These include, but are not limited to

1. Bends, reducers, valves, or other fittings not indicated on drawings provided by the purchaser.
2. Overpoured lead joints.
3. Deformations in the pipe wall, out-of-round pipe, or defective pipe.
4. Protruding lateral or service connections.
5. Internal tie rods.
6. Successive cocked joints.

**4.7.2 Leaking valves.** The purchaser shall be responsible for preventing water from existing connections from entering the pipe before lining has been completed. The purchaser shall be responsible for the repair or replacement of leaking sideline valves as soon as discovered. The purchaser's specifications may require the constructor to do the actual work of repair or replacement, but even if not so required, the constructor shall be permitted, if the purchaser fails to act immediately, to excavate on one side or the other of the leaking valve, cut the pipe, and stop the leakage.

## **Sec. 4.8 Methods for Lining of New Steel Pipe**

**4.8.1 Access openings for lining.** The constructor may use existing manholes, flanged outlets, and pass holes for access and material feed points during the lining operations. Access openings shall be removed or replaced in accordance with purchaser's specifications. Cement-mortar lining of closures and adjacent areas shall be applied by machine or hand methods. Access to the pipeline for placing

field-applied cement-mortar lining may be obtained by one or more of the following methods:

1. Temporarily omitting short "roll-out" sections of pipe.
2. Deferring the installation of closing sections of pipe until after completion of the lining.
3. Cutting "half-cap" openings in the installed pipeline.
4. Cutting temporary feed-point manholes in the installed pipeline.

4.8.2 *Preparation of pipe surfaces.* The interior surface of the pipeline shall be cleaned before placement of cement-mortar lining. The pipe interior surface shall be free of oil, grease, and accumulations of water. Loose mill scale, dirt, rust, and construction debris shall be removed from the interior surface of the new pipeline. This may be performed by using a stiff street broom in large pipe or a drag brush in small pipe. Shot or sandblasting shall not be required.

4.8.3 *Machine application of cement-mortar lining.*

4.8.3.1 *Cleanup ahead of machine.* Immediately before the travel of the lining machine through a pipeline, all foreign material, such as sand, loose mortar, dirt, and debris shall be removed.

4.8.3.2 *Lining procedure.* The lining shall be applied in one or more courses by a machine traveling through the pipe and distributing the mortar uniformly across the full section and long radius bends of the pipe. The discharge shall be from the rear of the machine so that the newly applied mortar will not be marked. The rate of travel of the machine and the rate of mortar discharge shall be mechanically regulated to produce a smooth surface and uniform thickness throughout. The mortar shall be densely packed and adhere wherever applied; there shall be no injurious rebound.

4.8.3.3 *Procedure at joints.* Joints shall be packed with mortar before lining where necessary to provide a smooth surface across the joint. These mortared areas shall be moist and free of surface checking before proceeding with the machine lining over the joint area.

4.8.4 *Surface finish.* The mortar lining in all pipe of the diameters described in this standard shall be mechanically troweled except for the places where hand troweling or the placement of an untroweled lining is expressly allowed by this standard. (Sec. 4.8.4.2.1).

4.8.4.1 *Troweled linings.* The lining machine shall be provided with attachments for mechanically troweling the mortar. Both the application and troweling of

the mortar shall take place at the rear of the machine so that the freshly placed and troweled mortar will not be damaged. The trowel attachment shall be such that the pressure applied to the lining will be uniform and produce a lining of uniform thickness with a smooth, finished surface, free of spiral shoulders. The finished surface of machine-placed troweled lining in pipe 24 in. (600 mm) and larger in diameter shall be examined as described in Sec. 4.5.4.1.1 and shall meet the performance criteria in Sec. 5.2.7.

4.8.4.2 Untroweled linings. The finished surface shall be smooth and regular except that it may exhibit a slightly dimpled appearance similar to the surface of an orange. Ridges or uneven buildup caused by irregularity in the travel rate of the machine shall not be allowed.

4.8.4.2.1 Untroweled lining may be allowed in sections of a pipeline where the pipe to be lined is excessively out of round.

4.8.5 *Hand application of cement-mortar lining.* Hand-placed mortar shall have a uniform surface with smooth transitions to adjacent machine-placed lining.

4.8.5.1 Allowable hand placement. In pipe 24 in. (600 mm) and larger in diameter, in places where machine placing of cement-mortar lining is impractical, (such as sharp bends, specials, or areas closely adjacent to valves), lining shall be performed by hand.

4.8.5.2 Materials. Cement mortar for handwork shall be of the same materials as the mortar for machine-placed lining.

4.8.5.3 Cleaning. Areas to be lined shall be cleaned as specified in Sec. 4.8.2 and, if necessary, shall be moistened with water immediately before placing the hand-applied mortar.

4.8.5.4 Troweling. Steel finishing trowels shall be used for the hand application of cement mortar, except at bends. The outer edges of hand-troweled areas may be brushed to reduce the abutting offset.

4.8.5.5 Timing. All hand-finishing work in a section of pipeline shall be completed within 24 hr after completion of the machine application of mortar lining to that section. If necessary, application of mortar lining by machine shall be delayed or stopped to ensure compliance with this schedule.

4.8.6 *Special requirements at openings.* Laterals and connections to the pipe being lined shall not be left obstructed by the lining operations. Openings in the pipeline for manholes, outlets, and blowoffs shall be temporarily closed and covered with removable coverings or other suitable devices to prevent the intrusion of the

cement mortar into the openings. On completion of the lining, the constructor shall remove all of these covers and shall repair any lining damaged in the process.

#### 4.8.7 *Curing.*

4.8.7.1 General requirements. Curing operations shall begin immediately following completion of the machine placement of the cement-mortar lining in a section of pipeline. The section of pipe shall be closed with airtight covers over all openings, and the lining shall be maintained in a moist condition. The pipeline shall remain closed and the moist atmosphere maintained until the pipeline is filled.

4.8.7.2 Curing by constructor. When a section of pipeline has been completed, the constructor shall be responsible for careful curing of the cement-mortar lining until the section is filled with water by the purchaser, or until the lining has been accepted by the purchaser, but in no case for more than seven days. In the event that the purchaser cannot fill the pipeline within seven days after the lining has been placed, or within the time specified by the purchaser, the purchaser may direct the constructor to extend the curing period.

4.8.7.3 Curing by purchaser. Sections of the mortar-lined pipe shall be filled with water as soon as possible after lining operations in such a manner as not to damage the lining. There shall be no pressure on any section until the mortar lining has been in place for at least 24 hr, except for pressure induced by variations in the grade of the pipeline. The filling should be performed by the purchaser, unless the purchaser's specifications stipulate otherwise.

4.8.7.4 Sprinkling exterior. The exterior surfaces of pipe exposed to sunlight shall be sprinkled with water and kept moist in the daytime during the period of lining, finishing, and curing when sprinkling is required, as determined by the constructor or the purchaser, to prevent cracking of the lining.

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## SECTION 5: VERIFICATION

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### Sec. 5.1 Inspection

All materials provided and work performed will be subject to inspection. The constructor shall provide, without additional cost to the purchaser, samples and reasonable assistance for the inspection of materials and workmanship.

5.1.1 *Sampling and testing frequency.* A set of at least two standard test cylinders shall be made each day from the cement-mortar lining for each shift to

satisfy the quality control requirements of Sec. 5.1.2. Additional cement–mortar testing shall be defined in the purchaser’s specifications.

5.1.2 *Strength of cement–mortar lining.* Cement–mortar test cylinders shall attain a minimum compressive strength of 4,500 psi (31 MPa) in 28 days. Pipe with cement–mortar lining that does not meet the strength requirements described in this standard shall be subject to rejection.

## **Sec. 5.2 Inspection of Rehabilitated Pipelines**

5.2.1 *Responsibility of purchaser and constructor.* The entire procedure for applying cement–mortar lining may be subject to continuous inspection by the purchaser, but the inspection shall not relieve the constructor of the responsibility to provide material and perform work in accordance with this standard.

5.2.2 *All phases accessible to purchaser.* The purchaser shall have free access to all areas, places, or facilities concerned with the providing of material or the performance of work according to the provisions of this standard.

5.2.3 *Constructor to assist purchaser.* The constructor shall provide the purchaser reasonable assistance, without additional charge, in performing inspection duties and, specifically, in obtaining information concerning the material used and the progress of the work.

5.2.4 *Pipe inspection procedures.* The purchaser may inspect the pipeline following the application of the cement–mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with this standard.

5.2.4.1 *Small-pipe inspection procedure.* The inspection of the lining in pipe that is too small for a person to enter, less than 24-in. (600-mm) inside diameter (ID), may be made by television or from both ends of the lined pipe segment by using strong lights or mirrors. The purchaser may determine the quality of the lining from this visual inspection. Where practical, on pipelines that are less than 24-in. (600-mm) ID, the lining may be inspected by the purchaser before the lining has attained its initial set. (It is not practical to remove defective cement–mortar lining that has reached its initial set.)

5.2.4.2 *Large-pipe inspection procedure.* In pipe 24-in. (600-mm) ID and larger, a manual, visual inspection of the lined pipe interior may be made by the purchaser to determine the quality of the lining and to identify defective areas in the lining for repair. Physical inspection shall adhere to appropriate safety precautions for confined spaces.

5.2.5 *Defective lining.* Defects in cement–mortar lining include, but are not limited to, sand pockets, voids, oversanded areas, excessively cracked and drummy areas, areas of lining thinner than specified, and areas of unsatisfactory surface finish.

5.2.6 *Repair of defective lining.*

5.2.6.1 Pipe less than 24-in. (600-mm) ID. In pipe less than 24-in. (600-mm) ID, the defective lining shall be removed in total from the pipe segment before the lining has reached its initial set. The pipe segment shall then be relined in full compliance with project specifications. Defective lining rejected after initial set shall be repaired by the most practical method as determined by the purchaser, in consultation with the constructor.

5.2.6.2 Pipe 24-in. (600-mm) ID and larger. In pipe 24-in. (600-mm) ID and larger, defects in lining shall be repaired. Small defective areas shall be repaired by manual removal of the defective lining and reapplication of cement–mortar lining. Defective areas encompassing the full diameter of the pipe shall be replaced by machine wherever practical.

5.2.7 *Guarantee and performance criteria.*

5.2.7.1 Guarantee. If an examination by the purchaser of the cement–mortar lining work within a period of one year after final completion and acceptance of the work reveals evidence of defective materials or workmanship as defined in this standard, then the purchaser shall act according to the remedies in Sec. 5.2.6 of this standard. The constructor shall bear the expense and perform the repair of defective work in a manner acceptable to the purchaser.

5.2.7.2 Performance criterion—surface finish. The Hazen–Williams  $C$  factor ( $C_{hw}$ ) is a generally accepted criterion for determining the acceptability of surface finish of cement–mortar lining and restoration of carrying capacity in rehabilitated pipelines. Table 2 and Sec. 5.2.7.1 are given as a guarantee for acceptable performance in smooth-bore pipe.

## Sec. 5.3 Inspection of New Steel Pipe

5.3.1 *Responsibility of purchaser and constructor.* The entire procedure of applying cement–mortar lining may be subject to continuous inspection by the purchaser, but this inspection shall not relieve the constructor of responsibility to provide material and perform work in accordance with this standard.



Table 2 Acceptable performance for smooth-bore pipe

Pipe Inside Diameter		Guaranteed
<i>in.</i>	( <i>mm</i> )	$C_{hw}$ Factor*
4	(100)	90
6	(150)	100
8	(200)	110
10	(250)	115
12	(300)	120
14–20	(300–350)	125
>20	(>500)	130

\*Based on nominal inside of pipe diameter before cement–mortar lining. The purchaser may specify that flow tests be conducted by an independent testing firm, by the constructor, or by the purchaser. The purchaser may establish liquidated damages to be assessed against the constructor when the lined pipe does not achieve the guaranteed  $C_{hw}$  factor.

5.3.2 *All phases accessible to purchaser.* The purchaser shall have free access to all areas, places, or facilities concerned with the providing of material or the performance of work according to the provisions of this standard.

5.3.3 *Constructor to assist purchaser.* The constructor shall provide the purchaser reasonable assistance, in performing the inspection duties and specifically in obtaining information concerning the material used and the progress of the work.

5.3.4 *Pipe inspection procedures.* The purchaser may inspect the pipeline following the application of the cement–mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with this standard.

5.3.4.1 *Small-pipe inspection procedure.* The inspection of lining in pipe that is too small for a person to enter, less than 24-in. (600-mm) ID, may be made by television or from both ends of the lined pipe segment by using strong lights or mirrors. The purchaser may determine the quality of the lining from this visual inspection. Where practical, on pipelines that are less than 24-in. (600-mm) ID, the lining may be inspected by the purchaser before the lining has attained its initial set.

5.3.4.2 *Large-pipe inspection procedure.* In pipe 24-in. (600-mm) ID and larger, a manual, visual inspection of the lined pipe interior may be made by the purchaser to determine the quality of the lining and to identify defective areas in the lining for repair. Physical inspection shall adhere to appropriate safety precautions for confined space.

5.3.5 *Defective lining.* Defects in cement–mortar lining include, but are not limited to, sand pockets, voids, oversanded areas, excessively cracked and drummy

areas, areas of lining thinner than specified, and areas of unsatisfactory surface finish.

#### 5.3.6 *Repair of defective lining.*

5.3.6.1 Pipe less than 24-in. (600-mm) ID. In pipe less than 24-in. (600-mm) ID, the defective lining should be removed in total from the pipe segment before the lining has reached its initial set. The pipe segment shall then be relined in full compliance with project specifications. Defective lining rejected after initial set shall be repaired by the most practical method as determined by the purchaser, in consultation with the constructor.

5.3.6.2 Pipe 24-in. (600-mm) ID and larger. In pipe 24-in. (600-mm) ID and larger, defects in lining shall be repaired. Small defective areas shall be repaired by manual removal of the defective lining and by reapplication of mortar lining. Defective areas encompassing the full diameter of the pipe shall be replaced by machine wherever practical.

5.3.6.2.1 Lining cracks. Temperature and shrinkage cracks in the mortar lining less than  $\frac{1}{16}$  in. (1.6 mm) in width need not be repaired. Cracks wider than  $\frac{1}{16}$  in. (1.6 mm) need not be repaired if it can be demonstrated to the satisfaction of the purchaser that the cracks will heal autogenously under continuous soaking in water. The autogenous healing process may be demonstrated by any procedure that keeps the lining of the pipe continually wet or moist.

5.3.7 *Protection of lining.* Every precaution shall be taken to prevent injury to the lining. Should the constructor damage the lining at any time before completion of the contract, the damage shall be repaired conforming to the requirements of this standard.

#### 5.3.8 *Guarantee and performance criteria.*

5.3.8.1 Guarantee. If an examination by the purchaser of the cement-mortar lining work within a period of one year after final completion and acceptance of the contract work reveals evidence of defective materials or workmanship as defined in this standard, then the purchaser shall act according to the remedies in Sec. 5.3.6 of this standard. The constructor shall perform the repair of defective work in a manner acceptable to the purchaser.

5.3.8.2 Performance criterion—surface finish. The Hazen-Williams  $C$  factor ( $C_{hw}$ ) is a generally accepted criterion for determining the acceptability of surface finish of cement-mortar lining in pipelines. (Table 2 and Sec. 5.3.8.1 are given as guarantees to acceptable performance in smooth-bore pipe.)

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## SECTION 6: DELIVERY

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### **Sec. 6.1 Marking**

This standard has no applicable information for this section.

### **Sec. 6.2 Shipping**

This standard has no applicable information for this section.

### **Sec. 6.3 Affidavit of Compliance**

The purchaser may require the constructor to provide an affidavit of compliance or material test reports stating that the materials used were in compliance with the requirements of this standard. The affidavit shall be signed by the constructor.

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# **History and Development Of Water Main Rehabilitation by In-situ Cement Mortar Lining Technology**

**Joseph Dioslaki**

**Jiangwei Deng**

**Abstract:** The article expatiates on history, development, and technical advantage of Trench-less In-Place Cement Mortar Lining technology, which has been widely accepted for water main rehabilitation in USA.

**Key words:** Trench-less, In-Place Cement Mortar Lining, Water Main Rehabilitation, Technical advantage

Rehabilitation of water mains by trenchless technology methods are widely accepted in the United States. In place rehabilitation of water mains are generally accomplished by the following methods:

- Cement Mortar lining
- Epoxy Lining
- Slip-lining
- Cure-in-place
- Pipe Bursting

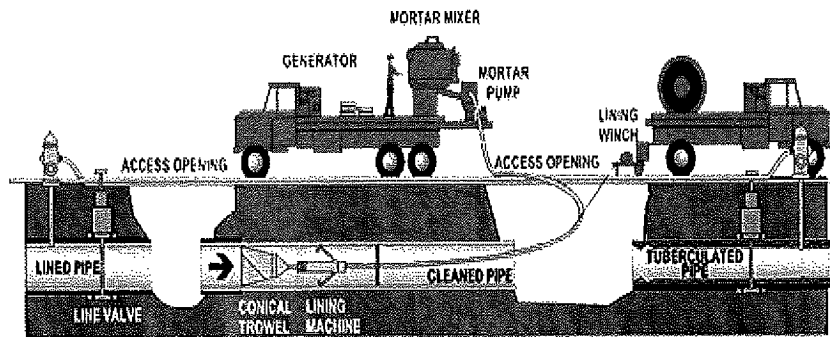
This article will address Cement Mortar Lining technology, the most widely accepted and used technology for the rehabilitation of water mains in the United States of America. The unique benefits of this method have been undiscovered in many communities throughout the world since very few introductions of this process have been made in recent times.

## **In Place Cement Mortar Lining Operating Procedures**

The following steps briefly describe the basic operating procedures:

1. Install Bypass
2. Excavate Access Pits
3. Clean Pipe
4. Apply Mortar
5. Clear Services
6. Cure Mortar

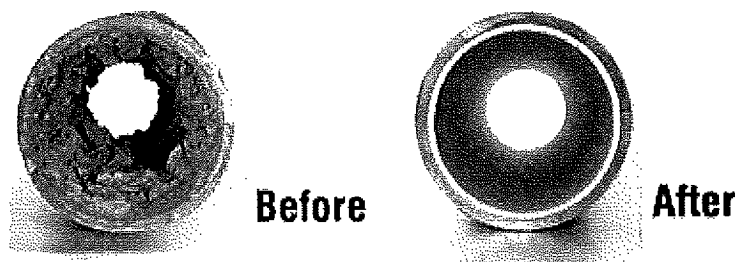
7. Pressure Test Pipe
8. Disinfect Pipe
9. Tie In To Existing System
10. Remove Bypass and Connect Services



In Place Cement Mortar Lining Operating Procedures

### History and Development of Cement Mortar Lining in USA

In the United States of America between 300 and 400 miles (between 482 and 643 km.) of water main are rehabilitated with the **In-Place Cement Mortar Lining Process** each year. This process is the most widely accepted and used technology for the rehabilitation of water mains in existence. Through the early 2000's it is estimated that over 7,000 miles (11,265 km.) of water main, ranging in diameter from 3 inches to 336 inches (7.6 cm. to 850 cm.), have been rehabilitated throughout the world by this in-place cement mortar lining process. The use of this process far exceeds the combined use of all other rehabilitation methods in existence today. The reasons for this wide acceptance are numerous. Below follows a brief history detailing cement mortar lining's evolution and growth.



Watermain Rehabilitated Before and After

The use of cement mortar as a protective lining for water mains was first reported by the French Academy of Science in 1836. By 1850, cement-lined hand coated riveted steel pipe was introduced in the United States. In the early 1930's a practical method was developed to line pipes using cement mortar by leaving the pipe intact and "in-place". This prompted the first field trial of in-place cement-mortar lining performed in Jersey City, New Jersey on a short section of 72 inch (1,830 mm) diameter steel pipe. The

success of this trial was the prelude to the 1934 cleaning and lining of 27,551 feet (8,397 m) of aged, 48 inch (1,220 mm) riveted-steel pipe supplying Newark, New Jersey. The cement mortar lining increased the Hazen-Williams<sup>1</sup> flow coefficient (from 70 to 124) to exceed its original capacity by covering over rivets and seams creating a smoother contoured pipeline, lessening disturbances in the flow stream. The cement lining also stopped all leakage that previously was occurring at seams and rivets. In 2002 this pipeline was opened, and the cement lining was observed to be in good condition.

In 1939 American Water Works Association (AWWA) published the standard for factory application of cement mortar lining to new pipe<sup>2</sup>. This standard was titled, Standard for Cement Mortar Protective Lining and Coating for Steel Water Pipe. Due to technology limitations, until 1950 the smallest diameter pipe that could be rehabilitated in-place was 24 inch (600 mm) because man entry was required to control the lining machine within the pipe. In 1950, a small diameter centrifugal lining machine that did not require man entry was developed, allowing the in-place lining of smaller diameter pipelines. As a result, in 1955 the in-place lining standard titled, AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place, Sizes 16 In. and Larger was published. By 1962 in-place cement mortar lining included pipe as small as 4 inches (100 mm) in diameter. The most recent update of this AWWA standard is dated 2000. Today technology permits in-place cement mortar lining of pipelines ranging in diameter from 3 inches (75 mm) to 28 feet (9.2m).

Beginning in the mid 1950's, a phased program by the AWWA required larger diameter water mains to be installed with an internal cement mortar lining to prevent internal corrosion and tuberculation. This requirement was the catalyst for the factory applied cement mortar lining that coats internal surfaces of new steel and ductile iron water mains being installed today. By 1965 the AWWA completed the phasing program and *required that all new steel and cast iron water mains be installed with an internal cement mortar lining*. It is clear that the benefits of cement mortar lining were understood. Since the water distribution grids in major cities throughout the United States were already mature before this date, water distributors began to notice flow reductions and discolored water due to iron oxidation and the internal buildup of corrosion. Flow reduction on the larger diameter water mains significantly affected pumping costs, while flow reductions on the smaller diameter mains alarmingly reduced flows available at fire hydrants. It quickly became evident that rehabilitation or replacement were the only options and that in-place cement mortar lining was determined to be the most economical and practical solution.

Programs were instituted to rehabilitate entire city distribution systems in a methodical fashion, starting with large diameter trunk mains, and then continuing with smaller diameter distribution grids. By 2004, some cities such as Los Angeles, California and Louisville, Kentucky had nearly completed their rehabilitation programs, while some cities such as Baltimore, Maryland and Boston, Massachusetts were in the midst of their programs. Yet other cities such as Columbia, South Carolina and Nashville, Tennessee where just beginning their rehabilitation programs.

Today, in-place cement mortar lining of cast iron and steel water mains ranging in size from 3 inches (75mm) to 28 feet (9.2m) in diameter are common practice for the economical rehabilitation of water mains in most major cities throughout the United States. These rehabilitation programs are ongoing. Water distribution agencies familiar with the cement mortar lining process maximize the use of in-place cement mortar lining since it is the most economical rehabilitation technique available. Included among them are:

• Baltimore, Maryland	• Jersey City, New Jersey
• Altoona, Pennsylvania	• Monroe County, New York
• Columbia, South Carolina	• Cleveland, Ohio
• Cincinnati, Ohio	• Los Angeles, California
• Denver, Colorado	• Boston, Massachusetts
• Louisville, Kentucky	• Nashville, Tennessee
• Chicago, Illinois	• Washington Suburban San. Com.
• New Jersey American Water Co.	• Aqua Pennsylvania

These cities and water authorities are just a few of the agencies throughout the country that have ongoing cement mortar lining rehabilitation programs. This process is the most widely accepted and used technology for the rehabilitation of water mains in existence. The cement mortar lining rehabilitation programs throughout the United States have been found to effectively double the useful service life of cast iron, ductile iron, and steel water mains, at 30 to 50 percent of replacement costs.

### **The Unique Technical Properties of In Place Cement Mortar Lining**

The application of cement mortar lining to the interior of ferrous-metal water pipelines (steel, cast iron, ductile iron) provides a smooth protective finish that indefinitely protects against internal corrosion and tuberculation. As such, the lining also prevents the recurrence of internal corrosion and tuberculation in aged water pipelines provided that proper cleaning is performed in preparation for the lining application. The lining increases pipe carrying capacities by reducing friction caused by internal surface irregularities. As a result, water distributors benefit by maximizing hydraulic carrying capacities, minimize pumping costs, preventing customer complaints of discolored water, and economically doubling pipe service life expectancies by up to 75 years.

### **Corrosion Prevention and Hydraulic performance of Cement Mortar Lining**

Cement mortar linings are unique, in that they are porous structures. Corrosion protection is achieved by the development of a highly alkaline environment within the pores. This environment is a result of the production of calcium hydroxide during cement hydration. Cement Mortar Lining (CML) is a positive way to prevent corrosion on the interior surface of cast iron pipe once and for all. The CML maintains an alkali surface on the cast iron (or ductile iron) pipe that effectively prevents corrosion for as long as the lining remains in the pipeline. This is much better than "barrier to corrosion" or a coating



system that works as a barrier and tries to prevent corrosion by keeping moisture from coming into contact with the pipe.

In addition to the water quality improvement, cement mortar lining can greatly increase the hydraulic performance of the water main. Pipeline's Hazen-Williams C factor could achieve 130~140 after being rehabilitated by cement mortar lining, which is approximately equal to new HDPE and FRP pipe (C factor is about 140). But CML typically costs less than 50% of replacement costs, and has a life span in excess of 75 years. (as the diameter increases, the proportion of savings also increases dramatically).

The difference between In-Place CML and Factory CML by way of quality

In place CML is superior to factory CML because it is made typically with a one to one ratio of silica sand to Portland cement which provides a very durable lining with compressive strengths in excess of 7,500psi while factory linings are typically a three to one ratio. Further, in-place linings are under optimum curing conditions since water is typically introduced into the main about one day after the lining is applied. Further still, the in-place lining is applied centrifugally as opposed to the factory lining in which the pipe is spun so the factory process allows segregation of the cement mortar materials. As a result, the original mixing proportion (cement/sand ratio 1:2) changes, based on the concentration of CaO, the mixing proportion ranges from 3:1 (water side) to 1:3.7 (pipe wall side). The in situ lining develops no separation of grain sizes. The cross section produces a constant mixture of 1:1 as applied.

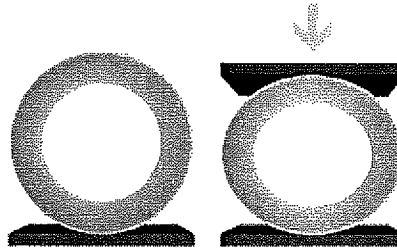
According to studies performed in Dortmund of Germany from 1972 to 1980, factory lined pipe tended to form a brittle layer on the surface of the factory lining after only three years of service. On the other hand, in-place cement mortar linings were found all to be in good condition even after 18 years of operation.

Structural performance of Cement Mortar Lining

CML itself is structural to a point. This was demonstrated in the Detroit Test which proved that a layer of less than ¼ inch CML is not as weak as thought. For a fully structural replacement that can withstand load forces and internal pressures Reinforced CML can be used on water mains 30" diameter and larger.

In 1950s, the ability of a cement-mortar lining to remain in place during deflection of the pipe was demonstrated in a deflection test conducted on a 72" (1,828.80 mm) diameter welded steel pipe section with a 5/16" (7.94 mm) wall thickness. A 1/4" (6.35 mm) cement-mortar lining was centrifugally applied and allowed to cure properly. During the following 16-month period, the lining was thoroughly dried out and the pipe was subjected to shock and vibration tests to demonstrate the integrity of the lining. At the end of this period, various loads were placed on top of the section until eventually a load section of 13" (330.20 mm) on the vertical axis was reached. Although hairline cracks appeared during the deflection, no impairment to the lining was observed either during the test or afterward when the load was removed.

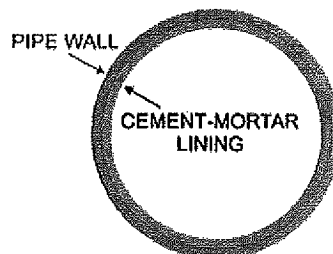
#### DURABILITY OF CEMENT-MORTAR LINING



Deflection Test of Cement Mortar Lining

A cement-mortar lining offers high compressive strength, creating an "arch action" which holds the lining in tight contact with the pipe wall. This is a major advantage over linings which rely on bond or adhesive strength to hold them in place. Cement mortar linings, while having substantial adhesion or bond, do not depend on bond to remain in place. A cement lining of proper thickness acts as a compression ring within a tension ring. It is a continuous arch which, being confined by the pipe, has no place to go. Deflection in a pipe merely increases the perimeter of the cement lining with respect to the pipe wall perimeter and thereby pushes the lining tighter against the wall of the pipe and resists the forces causing the deflection.

#### DIAGRAM OF ARCH ACTION INHERENT IN CEMENT-MORTAR LININGS



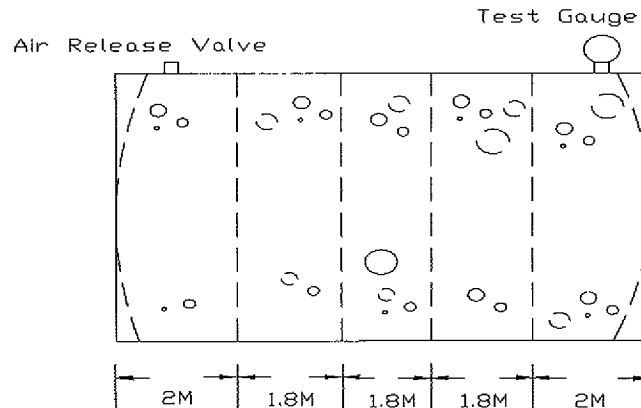
CEMENT LININGS:  
A CONTINUOUS RING,  
CONTAINED BY THE PIPE WALL

#### Ability of Cement Mortar Lining to prevent pipeline leakage

In Akron, Ohio, troubles had been experienced for some years from electrolytic action on the exterior of the city's 22 miles of parallel 36in and 48 in steel force mains. Leaks apparently resulting from corrosion started by electrolysis, continues to develop in both conduits. Investigation revealed that these leaks were caused by holes about  $\frac{1}{4}$ " in diameter, originating on the outside surface of the pipe. Resorting to tests which would simulate these actual conditions and using a comparable cement mortar lining  $\frac{1}{4}$  in thick, the engineers established to their satisfaction that holes not only of  $\frac{1}{4}$  in size, but up to and including 1  $\frac{1}{4}$  in could be spanned safely by this unsupported cement mortar lining and the leakage stopped even under water pressures of 200psi. though some "weeping"

was observable after passing 40lb. pressure in the tests, it completely stopped after 72 hours under test conditions.

Proof that Cement Mortar Lining prevents pipe leakage



Tests show that cement mortar lining prevents pipeline leakage and  
Is capable of bridging a hole over 6in diameter to withhold 305psi

In 1940 the city of Detroit, Michigan, conducted a pressure test on a length of 48" diameter x ½" wall riveted steel pipe. The section to be tested was perforated with numerous holes from 1" to 6 ¼ in diameter. Cement mortar lining was then applied to the inside of the pipe, the thickness of the lining graduating from ¼" at one end of the pipe to 1" at the other. After an adequate curing period, a prescribed hydraulic testing procedure was followed to determine the pressures at which failure might occur in the cement mortar lining. The large hole, 6 ¼" in diameter, blew out at a pressure of 305psi, with a deflection before rupture of 0.05 inches. The thickness of the lining at this particular hole was 5/8". From this test it is concluded that cement mortar lining properly applied, provides positive protection against leakage under normal operating pressures.

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**From:** Adamczyk, Lynne (GOV)  
**Sent:** Friday, January 29, 2016 3:48 PM  
**To:** Manolakoudis, Virginia (GOV); Clayton, Stacie (GOV); Agen, Jarrod (GOV); Sachs, Tori (GOV); Thelen, Mary Beth (DEQ)  
**Subject:** Document for Review - METRA  
**Attachments:** 01.29.16 - METRA Industries Documents to Assist in Flint Water System Problems.pdf

FYI

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January 26, 2016

Mayor Dr. Karen Weaver  
1101 S. Saginaw Street  
Flint MI 48502

Dear Mayor Weaver,

We are writing regarding your efforts to correct the Flint drinking water problems. In many cases rehabilitation of existing water mains is more beneficial than replacement. Rehabilitation via in-situ cement mortar lining is a proven long term effective means of corrosion prevention. It is economical, effective, and minimally disruptive. We are enclosing the following three reference documents to assist in correcting the Flint water system problems.

1. American Water Works Association (AWWA) standard C602 for Cement Mortar Lining of Water Pipelines in Place 4 in. and Larger.
2. American Water Works Association (AWWA) manual M28 Rehabilitation of Water Mains (partial copy of manual)
3. History and Development of Water Main Rehabilitation by In-situ Cement Mortar Lining Technology

Metra Industries is proficient in the performance of In-Place Cement Mortar Lining of water mains as well as many other rehabilitation technologies. Please call if you have any questions. We would be very happy to help. Thank you.

Very Truly Yours,



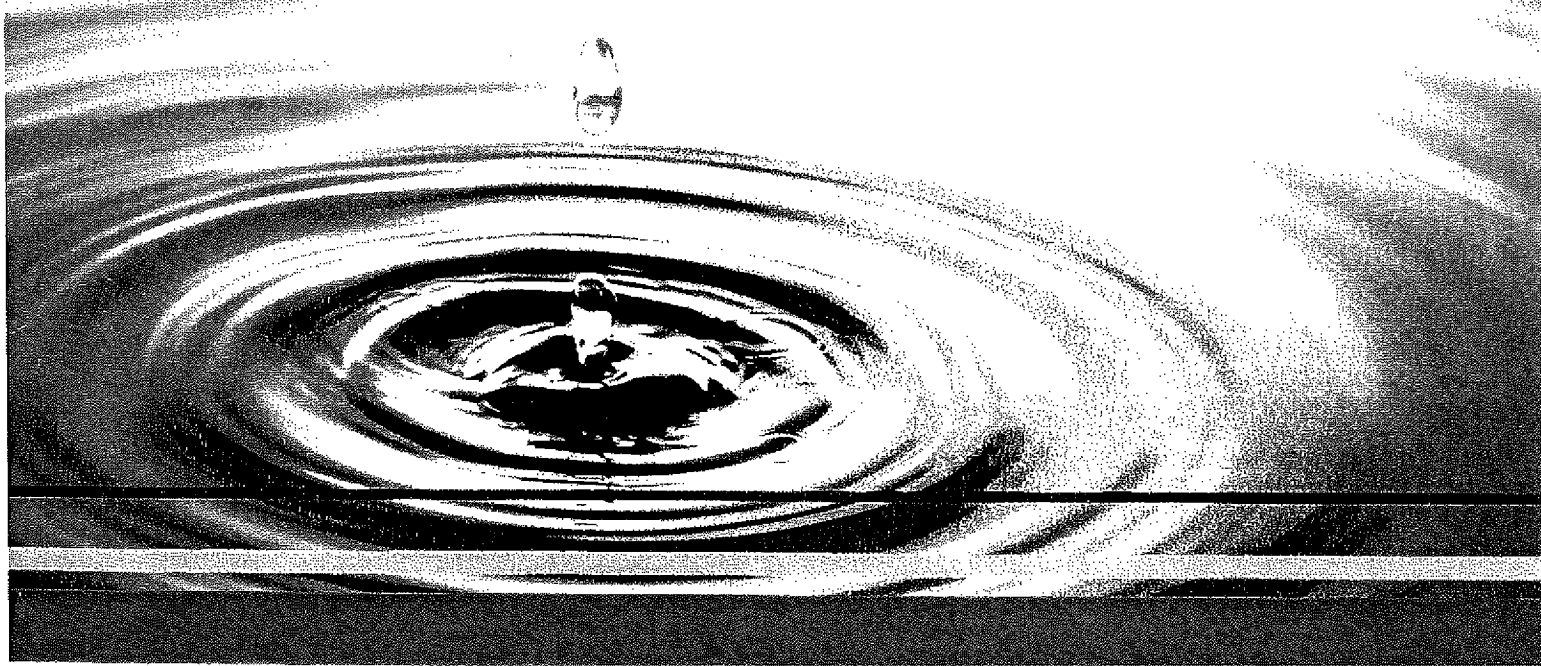
Joseph W. Dioslaki, P.E.  
Project Manager

CC: Governor Rick Snyder  
Bob Kaplan, EPA Region 5 Deputy Administrator  
Miguel Del Toral, EPA Region 5 Ground Water Drinking Water Branch Relations Manager  
Darren Lytle, EPA Office of Research and Development Scientist  
Michael Schock, EPA Office of Research and Development Scientist  
Jeff Kempic, EPA Office of Water Lead and Copper Rule Technical Lead  
Tim Henry, EPA Region 5 Water Division Deputy Director  
Tom Poy, EPA Region 5 Ground Water Drinking Water Branch Chief

# Rehabilitation of Water Mains

MANUAL OF WATER SUPPLY PRACTICES

28



American Water Works  
Association

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Conferences  
Education and Training  
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The Authoritative Resource for Safe Drinking Water™



## Chapter 1

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# Distribution System Performance Criteria

### WATER QUALITY

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The quality of treated drinking water may vary considerably, both from system to system and within a system, as a result of deterioration after it leaves the treatment plant and comes in contact with the interior of distribution system piping. Over time, changes in water chemistry can cause problems throughout the distribution system, ultimately affecting the quality of the water delivered to the end user.

The specific nature of distribution system water quality problems vary with water chemistry. However, the majority of these problems fall into three categories: sedimentation, encrustation, and fouling.

#### Sedimentation

Sedimentation is the process whereby solids settle out of water moving at low velocity in a main, reducing interior cross section and capacity. Source water pipelines or pipelines carrying improperly treated water can be subject to deposits of sand, silt, or organic materials. In extreme cases, sedimentation can also contribute to hydraulic problems, particularly at low points in the pipe.

Even slight overtreatment of water can result in posttreatment precipitation within the distribution system of deposits containing alum, lime, or calcium carbonate. A utility may promote controlled precipitation to lay down a thin layer (eggshell coating) of calcium carbonate for protection of the metallic pipeline interior. However, excessive or irregular deposits can easily occur, requiring cleaning of the distribution system.

#### Encrustation

Encrustation is a by-product of corrosion (tubercles) mixed with mineral deposits, such as iron, manganese, and carbonates. Before the 1960s, many iron pipes were



Figure 1-1 Pipe with problems caused by corrosion

installed without linings to protect the interior surfaces. These unlined pipes often experience internal corrosion.

As corrosion occurs, the interior of the pipe develops pits from which material is removed and tubercles where material is deposited (Figure 1-1). Additionally, corrosion can create "red water" complaints from end users. Corrosion may result from direct oxidation or electrolytic action, both fostered by aggressive water. Tuberculation can vary with water chemistry (from very soft to very hard water). Proper water chemistry does help to prevent additional buildup of encrustation. Most encrustation can be removed by cleaning. Perhaps the most significant water quality problem presented by encrustation are the potential difficulties maintaining a disinfectant residual. Removal of encrustation often increases a system's disinfectant residual; however, regrowth of encrustation is likely in unlined iron pipes.

## Fouling

Fouling represents a very significant problem, but one that is not always well-understood. A fouling problem can develop with any type of pipe material. The condition is usually caused by natural biological activity and results in buildup of an organic deposit on the interior of the pipe. Although this deposit is often soft and filamentous, it can severely affect water turbidity and cause taste-and-odor problems. Bacteriological activity from organisms, such as iron-fixing bacteria, can result in development of slimes and severe deposits in the pipe.

## HYDRAULIC PERFORMANCE

In addition to water quality problems discussed so far, any buildup inside distribution system piping can greatly reduce the hydraulic performance of the system. Hydraulic engineers have long determined flow in pipes by using the empirically derived Hazen-Williams formula:

$$V = 1.318Cr^{0.63}s^{-0.54}$$



Table 1-1 Hazen-Williams coefficient

Condition	C
New pipe	130-140
Fair to normal (interior clean)	100
Significant reduction in pipe capacity	70
Severe problem—interior cross section greatly reduced	30-50

where:

- $V$  = velocity, in ft/sec (m/sec)
- $r$  = hydraulic radius, in ft (m), which is the cross-sectional area of the pipe divided by the wetted perimeter
- $C$  = Hazen-Williams roughness coefficient
- $s$  = slope of the hydraulic grade line, in ft/ft (m/m)

$C$  (often called the "C factor") represents the coefficient of friction, a measure of the roughness of the interior of the pipe. Expressed in terms of  $C$ , the formula can be stated as:

$$C = 2,466QD^{-2.63}H^{-0.54}L^{0.54}$$

where:

- $C$  = Hazen-Williams roughness coefficient
- $Q$  = Quantity of flow in a pressure conduit, in mgd ( $m^3/d$ )
- $D$  = Nominal diameter of the pipe, in in. (mm)
- $H$  = Head loss, in ft (m) of water
- $L$  = Length of pipe, in ft (m)

The  $C$  factor, and hence the flow in a pipeline, depends on the type of pipe and its interior condition (see Table 1-1). For a given velocity, increased internal surface roughness (changing laminar to turbulent flow) can lead to a reduction in overall pipeline efficiency.

Field testing techniques allow distribution system operators to calculate Hazen-Williams  $C$  factors for their systems. These data help in making informed decisions about which process to employ to restore hydraulic efficiency. Collecting data for the Hazen-Williams  $C$  factor after employing any cleaning or pipe rehabilitation process is also a very useful way to gauge the impact of the system improvements.

## STRUCTURAL PERFORMANCE AND LEAKAGE

The structural performance of a water main may deteriorate over time because of a number of effects. Cast-iron, ductile-iron, and steel piping may be subject to internal and/or external corrosion, resulting in pitting and wall thinning, which can lead to leakage and eventual burst failures. Cement-based pipes such as asbestos-cement and concrete piping may also be subject to deterioration due to corrosion of the cement matrix and/or steel reinforcement. In addition, all types of pipe, including thermoplastics, may be subject to joint failure between pipe lengths and hence excessive leakage, which can in turn lead to washout of bedding and subsequent structural failure.

Such structural and leakage failures can have direct consequences such as high maintenance costs, water quality problems, service interruptions, and loss of valuable treated water. They may also have indirect consequences in terms of the economic and public relations costs of damage associated with bursts and the overall public image of the service provider.

## REHABILITATION SOLUTIONS

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This manual describes a number of possible solutions to problems arising from corrosion and deposition. These range from simple periodic cleaning to replacement of the pipe using "trenchless" techniques. All of the solutions discussed in the manual make some use of the existing pipe, either as part of the rehabilitated system (renovation solutions) or as a convenient route for installation of new piping (replacement solutions). Solutions involving installation of a replacement pipe along a new route, such as open trench laying, directional drilling, and microtunneling, are outside the scope of this manual.

Selecting the optimal solution to a specific pipeline problem is a complex process involving both technical and economic considerations. Both the American Water Works Association Research Foundation and a number of AWWA technical committees are developing computer-based decision tools to assist utility engineers in this process. This work is expected to come to fruition while this edition of the manual remains in effect. In the meantime, the following guidelines may prove useful.

## SELECTION OF REHABILITATION SOLUTIONS

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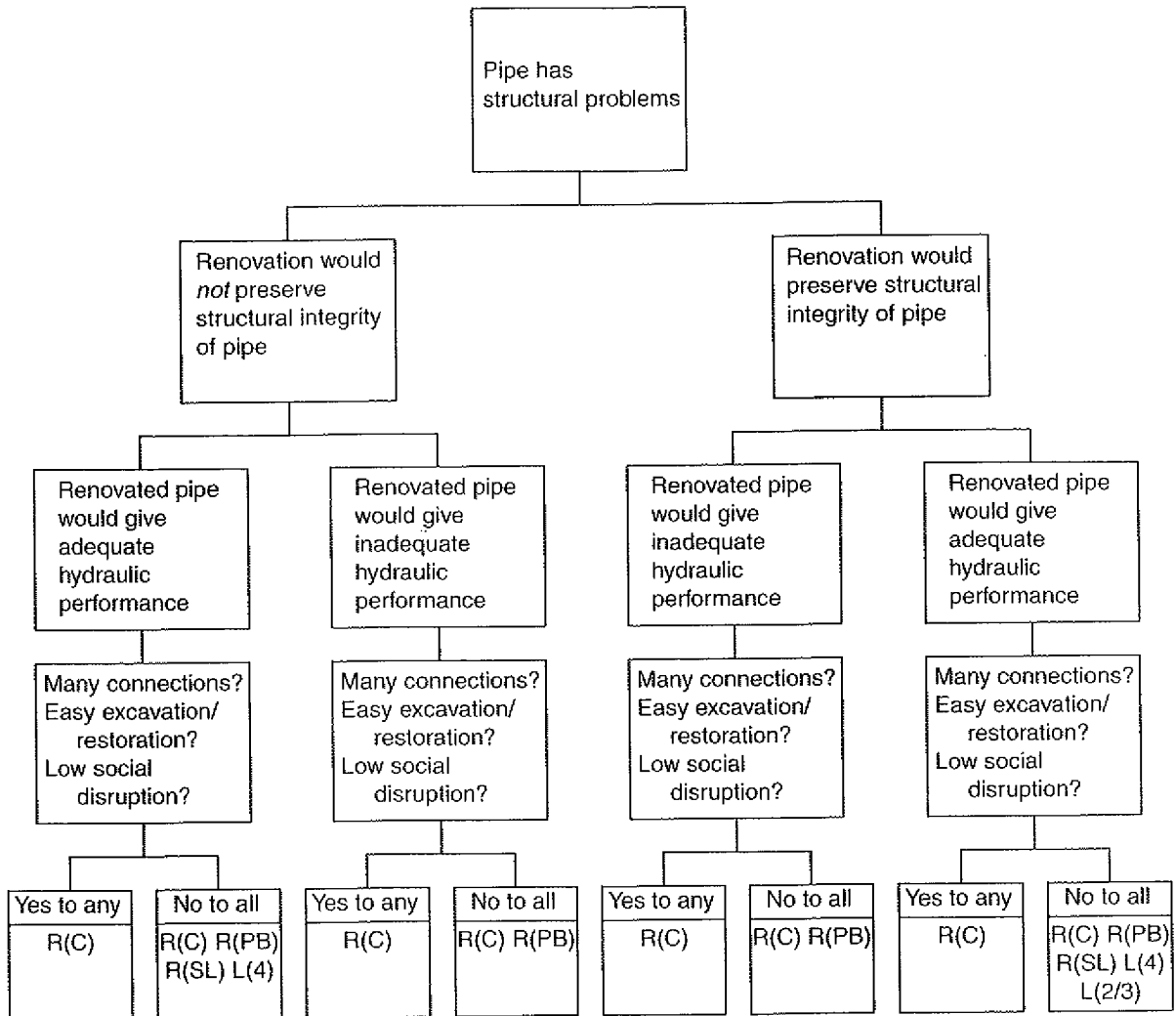
Key elements in the selection of a rehabilitation solution are

1. The exact nature of the problem(s) to be solved
2. The hydraulic and operating pressure requirements for the rehabilitated main
3. The materials, dimensions, and geometry of the water main
4. The types and locations of valves, fittings, and service connections
5. The length of time in which the main can be taken out of service
6. Site-specific factors

The aim of the selection process is to consider all these factors to arrive at the most cost-effective, technically viable solution. Ideally, the cost estimate should include not only direct contracting and related costs but also indirect costs associated with public disruption and longer-term maintenance and other "life cycle" costs.

One approach to technique selection is summarized in Figures 1-2, 1-3, and 1-4. Together, these charts provide a framework for selecting or rejecting groups of techniques, depending on the nature of the performance problems, hydraulic requirements, and some site-specific factors. In some cases, the charts indicate use of lining techniques classified as either Class I (nonstructural), Class II/III (semistructural), or Class IV (structural). A more detailed discussion of this classification system and of other key design issues associated with such lining techniques is presented in appendix A.

The figures do not list cleaning as a solution for water quality or flow and pressure problems. Cleaning with one of the various techniques discussed in the manual may well offer the lowest-cost immediate solution to many of these problems. It may offer a long-term solution if repeated as required or combined with chemical treatment of water to prevent or delay recurrence of the original problem. However, cleaning is more frequently used as a necessary preliminary step before carrying out one of the lining processes described in the manual.



R(C)—Replacement (conventional or boring/directional drilling)  
 R(PB)—Replacement (pipe bursting)  
 R(SL)—Replacement (slip-lining)  
 L(2/3)—Lining (semistructural—Class II/III)  
 L(4)—Lining (structural—Class IV)

Figure 1-2 Selection of rehabilitation techniques to resolve structural problems

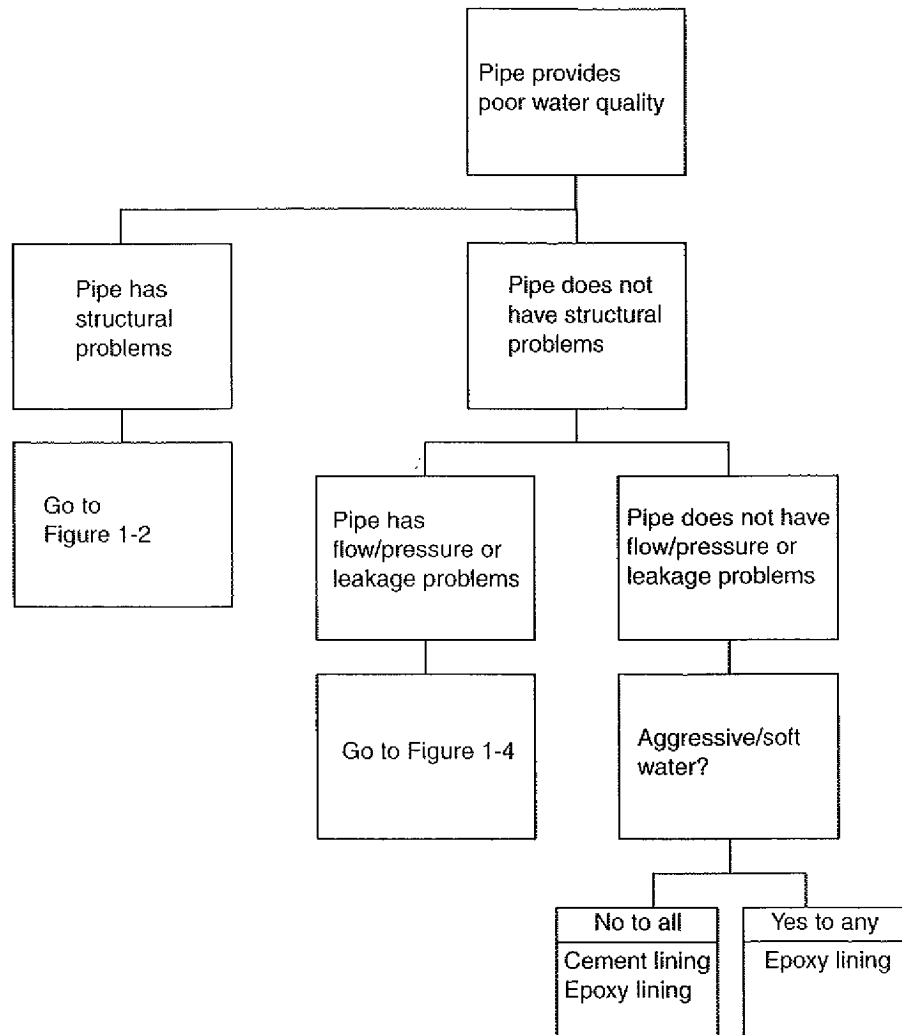
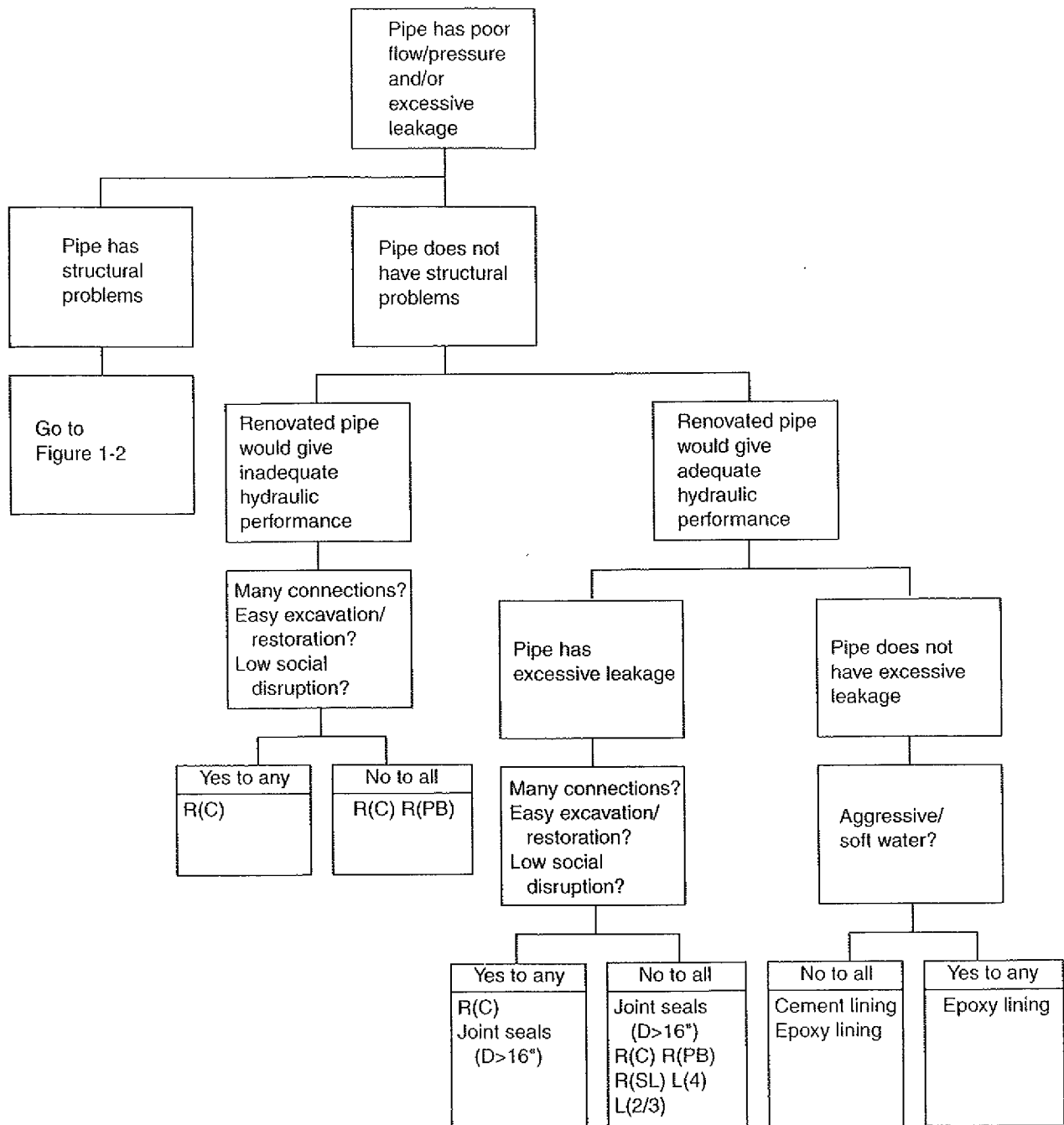


Figure 1-3 Selection of rehabilitation techniques to resolve water quality problems



R(C)—Replacement (conventional or boring/directional drilling)  
 R(PB)—Replacement (pipe bursting)  
 R(SL)—Replacement (slip-lining)  
 L(2/3)—Lining (semistructural—Class II/III)  
 L(4)—Lining (structural—Class IV)

Figure 1-4 Selection of rehabilitation techniques to resolve flow, pressure, and leakage problems



## Chapter 2

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# Cleaning

Water mains can be cleaned in place in a water distribution system using one or more of the following methods:

- Flushing
- Cable-attached devices
- Fluid-propelled devices
- Power boring

Dispose of cleaning water and debris in accordance with applicable regulations. Refer to AWWA Standard C651, *Disinfecting Water Mains*, for guidance in disinfecting pipelines before returning them to service.

## FLUSHING

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Water main flushing has a definite place in distribution system operation. It is particularly effective for light cleaning jobs. Mains should be flushed to clean newly installed and repaired mains prior to and after disinfection. Routine flushing is needed to remove impurities that cause complaints or are considered hazardous to public health. Refer to the AWWA handbook titled *Maintaining Distribution-System Water Quality* for specific flushing program guidelines.

Flushing should never be considered the only solution to water quality problems identified in the distribution system. Proper design and operation of distribution facilities and an effective backflow-prevention program should also be part of any effort to maintain water quality. While quality control is the primary purpose of flushing, careful observation of system hydraulics during flushing may indicate problems in mains, such as inadequate capacity, undiscovered restrictions, or closed or partially closed valves.

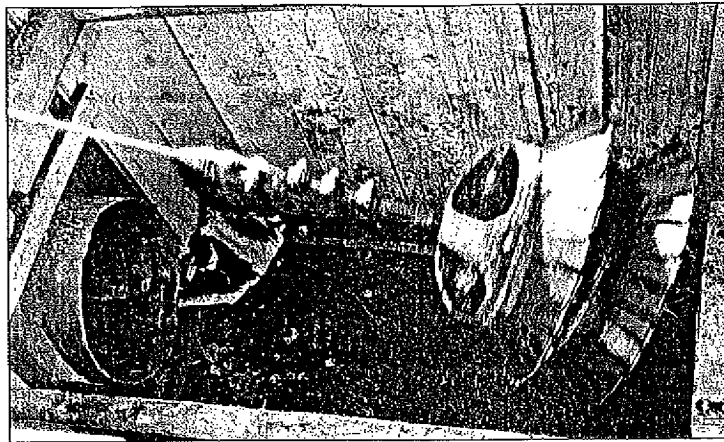


Figure 2-1 Drag cleaning, in which a winch pulls a mechanical cleaner through the pipe

## CABLE-ATTACHED DEVICES

Systems that use cable-attached devices for cleaning distribution mains include drag cleaning, hydraulic-jet cleaning, and electric scraper cleaning. In each case, the length of hose or cable determines the length of the pipe section that can be cleaned.

### Drag Cleaning

In drag cleaning, a winch pulls a mechanical cleaner, composed of a series of steel scraper blades and rubber squeegees, through the pipe (Figure 2-1). The mechanical cleaner is usually flexible, allowing it to negotiate bends of up to 45°. Both ends of the cleaner are fastened to steel cables, which are attached to winches at either end of the pipe section to be cleaned. The cleaner is winched first in one direction and then in the other, and this process continues until the pipe is satisfactorily cleaned.

This cleaning method offers important advantages:

- Cleaning can be accomplished when water pressure or volume is insufficient to propel a hydraulically driven device, or when excessive pressure would be required for hydraulic cleaning, especially with small-diameter mains.
- Very hard deposits and encrustation can be removed.
- Dry solids allow easy disposal.

### Hydraulic-Jet Cleaning

To clean pipe with a hydraulic jet, a special nozzle attached to a hose emits a jet of water at high velocity and pressure that removes debris and deposits from the interior of the pipe. Nozzle pressures of 1,000 to 10,000 psi (6,900 to 69,000 kPa) and above can be generated using this system. The jetted stream of water must bear hard enough against the scale or deposit to breach it and dislodge particles. Once the scale or depositional material is penetrated, the fluid forms a wedge between the deposit and the surface and strips off the deposit, exposing the clean metal surface. In many jetting operations, dislodged particles are entrained in the jetting stream and effectively dislodge more particles. The principal advantage of this method is removal of very tough deposits.

## Electric Scrapers

Electric scrapers are used to clean large-diameter lines. A variation of this cleaning method is the use of an electrically powered, operator-driven scraper. This power-driven scraper incorporates revolving brushes or rotating arms to clean the line.

The principal advantage of this method is the ability of the operator to evaluate the effectiveness of the cleaning process as it proceeds through the line.

## FLUID-PROPELLED CLEANING DEVICES

This section of the chapter describes fluid-propelled cleaning devices such as foam pigs and mechanical metal scrapers.

### Foam Pigs

Foam pigs are flexible, bullet-shaped cleaning tools manufactured of high-quality (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density) open-cell polyurethane foam, some coated with polyurethane synthetic rubber coatings (70 lb/ft<sup>3</sup> [1,121 kg/m<sup>3</sup>] density). (See Figures 2-2 and 2-3.) Pigs are propelled down water mains by the pressure and volume of water in the distribution system. Cleaning is accomplished by the frictional drag and flexible characteristics of the foam pig, which removes foreign objects, iron tuberculation, and other matter as it passes through the pipes, leaving the interior surfaces as smooth and free from irregularities as age, attrition of use, and type of piping material will allow. When water pressure is applied for propulsion, a certain amount of water bypass (approximately 10 percent) helps to keep loose debris suspended out in front of the foam pig (Figure 2-4).

Cleaning of deteriorating mains generally requires a series of swabs and foam pigs applied in progressively larger diameters (referred to as *progressive pigging*) until the pipe is restored to its original diameter.



Figure 2-2 Foam pig: A bullet-shaped device made of polyurethane foam



Figure 2-3 A foam pig with hardened coatings



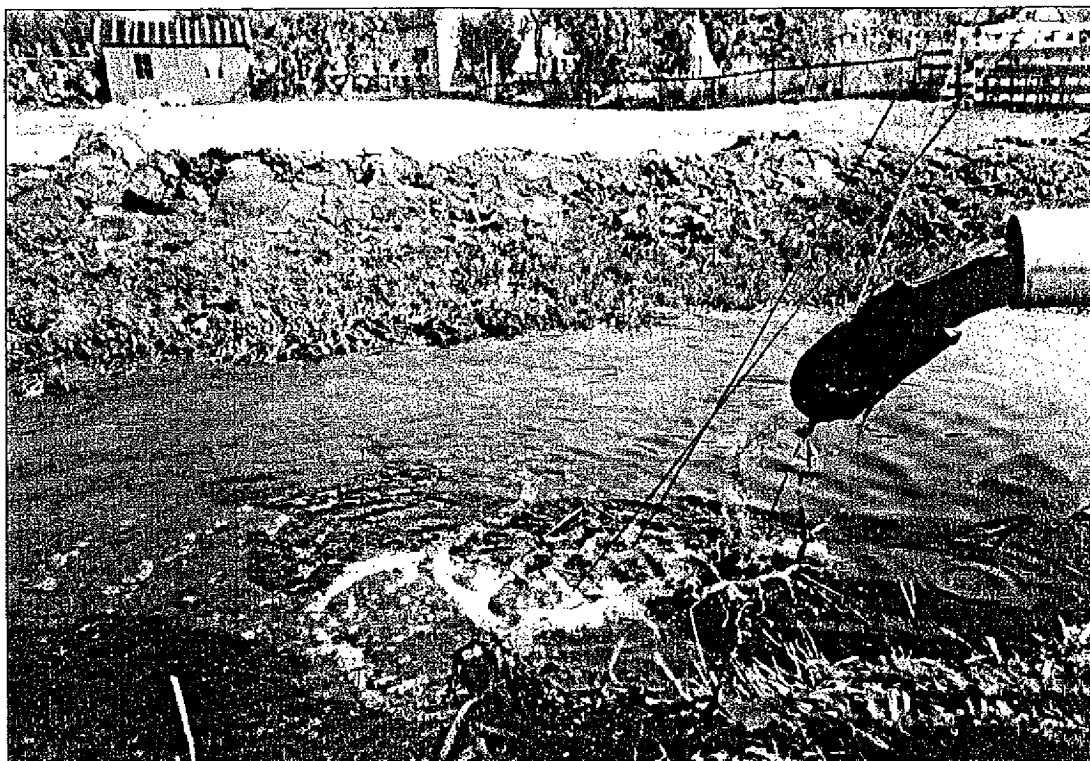


Figure 2-4 Loose debris flushed ahead of the pig

**Operating procedures.** The following steps briefly describe the most common operating procedures for cleaning water distribution mains with foam pigs. The described procedure is based on a best-case scenario; actual procedures may vary for certain applications.

1. Review drawings of lines to be cleaned to identify a) possible entry and exit points, and b) all valves to be used to isolate the section of system to be cleaned.
2. Exercise all valves in the section to be cleaned before the pigging operation to ensure isolation of the section to be cleaned.
3. Flow tests should be performed before and after the pigging operation to evaluate the efficacy of the cleaning and determine the resulting condition of the water main.
4. Provide adequate means for disposing any debris exiting the pipe. Storm drains may be suitable for disposing of small amounts of light debris. However, the best arrangement for handling large amounts of heavy debris would be to direct the flow to a temporary settling pond, the bed of a dump truck, etc., to facilitate removal of solids once the water has drained away.
5. Notify all affected customers (commercial and residential) as well as fire department officials of the scheduled interruption of service.

6. Confirm that all valves in the section to be cleaned are fully opened and working properly and that the section is properly isolated. Foam pigs follow the direction of flow, which must be controlled by the valve locations.
7. Introducing the foam pigs into the water main may be accomplished either by hand or through the use of mechanical equipment commonly called a *pig launcher*. Several types of fire hydrants, once they are disassembled, can be used as entry and exit points for pigging of some water mains 6 in. (150 mm) and smaller (Figure 2-5).
8. To produce the best cleaning results, foam pigs should travel through a water main at a rate of 3 to 9 ft/sec (9 to 24 m/sec).
9. Sequence of foam pig runs:
  - a. Introduce a line-sized, soft-foam swab (1.5 to 2.0 lb/ft<sup>3</sup> [24 to 32 kg/m<sup>3</sup>] density, uncoated), called a *prover pig*, to determine the actual effective inside diameter of the pipe to be cleaned. The swab wears down while passing deposits in and along the pipe wall.
  - b. Introduce a line-sized bare foam pig (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density, uncoated) to remove soft deposits and help gauge the true opening in the line.
  - c. Introduce a line-sized, coated foam pig (5 to 8 lb/ft<sup>3</sup> [80 to 128 kg/m<sup>3</sup>] density, coated with urethane elastomer). This type of foam pig should be run repeatedly until one emerges in reusable condition. A water line with excessive buildup should be pigged using the progressive pigging method, beginning with undersized, coated foam pigs and gradually increasing the size in successive passes until a line-sized foam pig emerges in reusable condition.

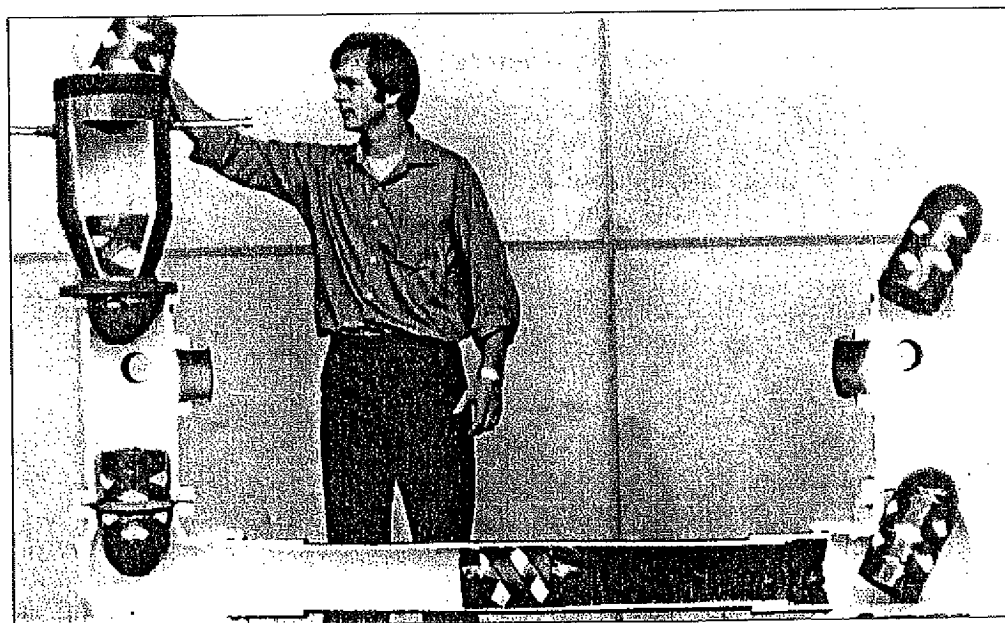


Figure 2-5 Pigs launched through a disassembled fire hydrant for a 6-in. (150-mm) or smaller line

- d. Line-sized, wire brush foam pigs may be introduced following these applications for final removal of extremely hard deposits (such as tuberculation).
  - e. Introduce a line-sized swab (1.5 to 2.0 lb/ft<sup>3</sup> [24 to 32 kg/m<sup>3</sup>] density foam, uncoated) to sweep out any loose debris and determine the effectiveness of the cleaning process.
10. Flush and disinfect as required.
  11. Place the water main back into service.

Foam pigs are flexible enough to negotiate short-radius bends and pass through full-port valves and some types of plug valves. Their capability to be compressed up to 35 percent of their cross-sectional area allows them to pass through multidimensional lines and full-port valves. A piggable valve is one through which a pig will pass every time. Foam pigs do not pass through butterfly valves. Foam pigs can clean long sections of piping from one entry point, thus reducing the number of excavation sites required. Pigging is a fast, simple, and cost-effective method of returning most deteriorated piping systems to as-designed capacity and efficiency.

## Metal Scrapers

A metal cleaning scraper consists of a steel frame shaped like a piston. Specially tempered steel blades are attached around the scraper at various angles to create a scraping and brushing action (Figures 2-6 through 2-8). The cleaner is propelled through the water main by means of water pressure.

Cleaning is often accomplished with a single pass in a continuous operation; sometimes, however, interior pipe conditions may require additional passes. The length of pipeline that can be cleaned hydraulically in one operation is limited only by the availability of volume and pressure water and a proper means of disposing of water and deposits. An opening must be provided at each end of the section to be cleaned for entry and exit of the cleaning tool. The volume of water required to hydraulically clean

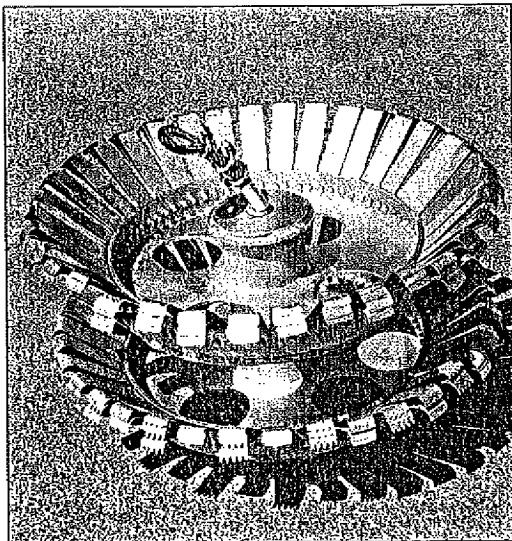


Figure 2-6 Scraper unit with specially tempered steel blades

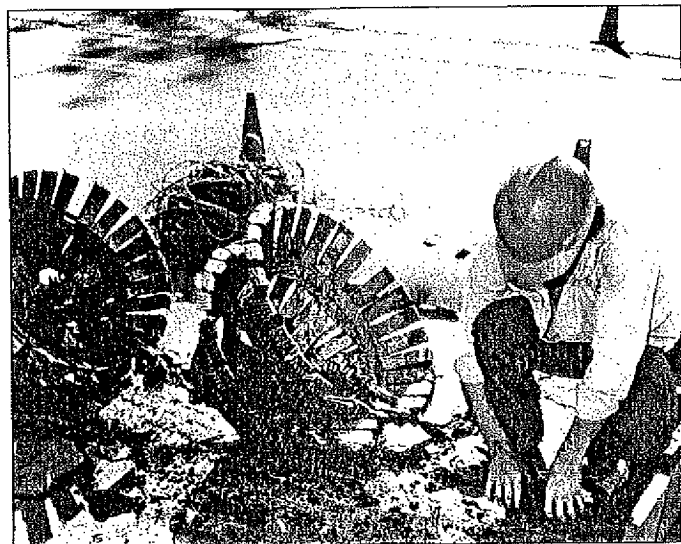


Figure 2-7 Several scraper units assembled together in the field

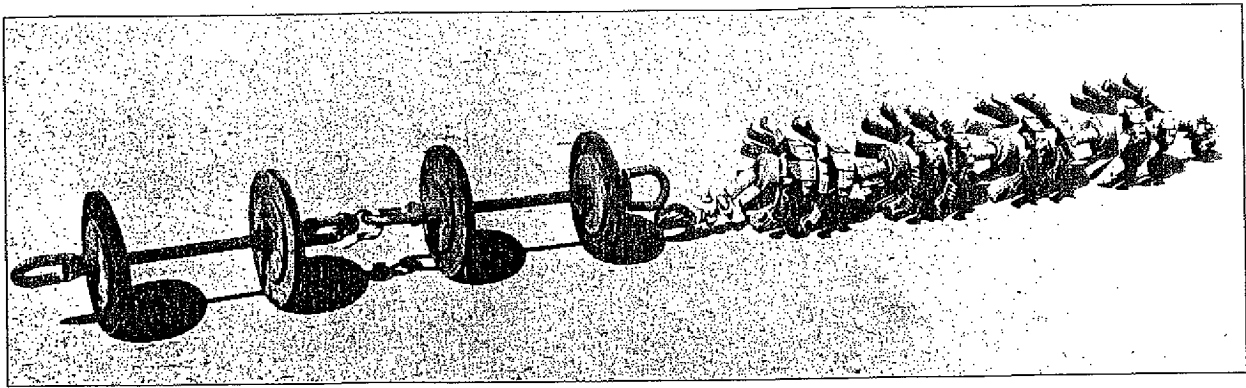


Figure 2-8 A series of disks to act as a hydraulic piston, pulling scrapers through the line

a pipeline will depend, to a great extent, on how dirty the water is. Sufficient water must be added behind the cleaner to fill the pipe as the cleaner moves ahead.

The water that passes the cleaner scours the wall of the pipe and washes ahead the material that is scraped off the pipe. While the velocity of water ahead of the cleaner is independent of cleaner speed, it must be sufficient to remove the deposits. Experience indicates that a flow velocity ahead of the cleaner of between 2 and 10 ft/sec (0.6 and 3.0 m/sec) is required to remove the deposits. In a small pipe, because a relatively large amount of material must be moved for the volume of the pipe, a relatively high velocity is required.

The cleaning water and deposits must be discharged from the pipeline in a way that avoids creating a nuisance or environmental problem. A sandbag dam can be constructed to create a pond for particle settlement (Figure 2-9). This allows the clean water to be decanted to a storm drain while any solid material is collected and properly disposed of. Another method is to pipe the water to a dump truck, catching the solids in the truck and allowing the water to run off into a storm drain.

**Operating procedures.** The following steps describe the operating procedures commonly used when cleaning water pipes with mechanical scrapers.

1. Review drawings of lines to be cleaned. Identify logical entry and exit points for the cleaning tool. Note all valves, service connections, and other components that must be opened or closed to isolate the line to be cleaned. Conduct C-factor tests (if not previously completed) to determine the condition of the line.
2. Excavate and install a spool piece at each entry and exit point (Figure 2-10). Obtain a sample of deposits in the line and determine their average thickness.
3. Determine source of cleaning water (e.g., reservoir, feeder mains, parallel lines, etc.). Cleaning for lines 12 in. (300 mm) in diameter and smaller may require auxiliary pumps to provide adequate flow and pressure; flow and pressure within the system generally are adequate to clean mains over 12 in. (300 mm) in diameter.
4. Provide suitable means for disposing water and removed solids.
5. Notify all affected commercial and residential customers, as well as fire department officials, of the scheduled interruption of service.

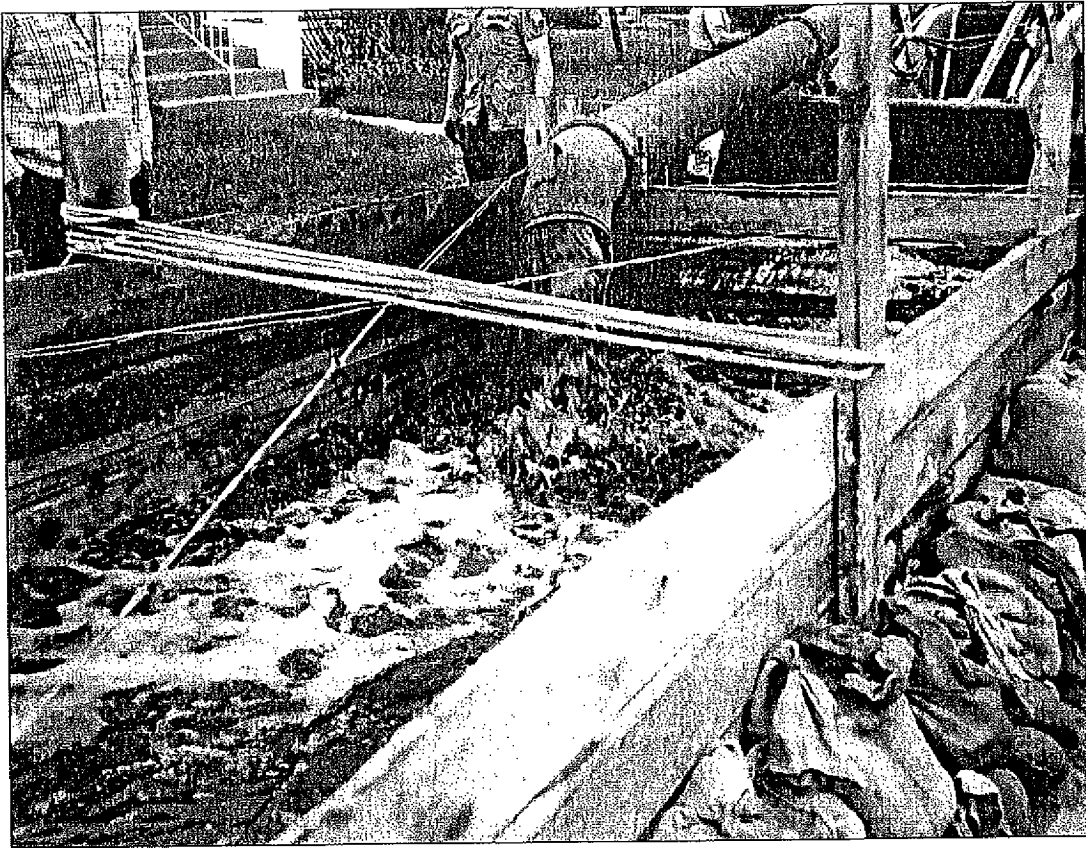


Figure 2-9 A sandbag dam to create a pond for particle settling

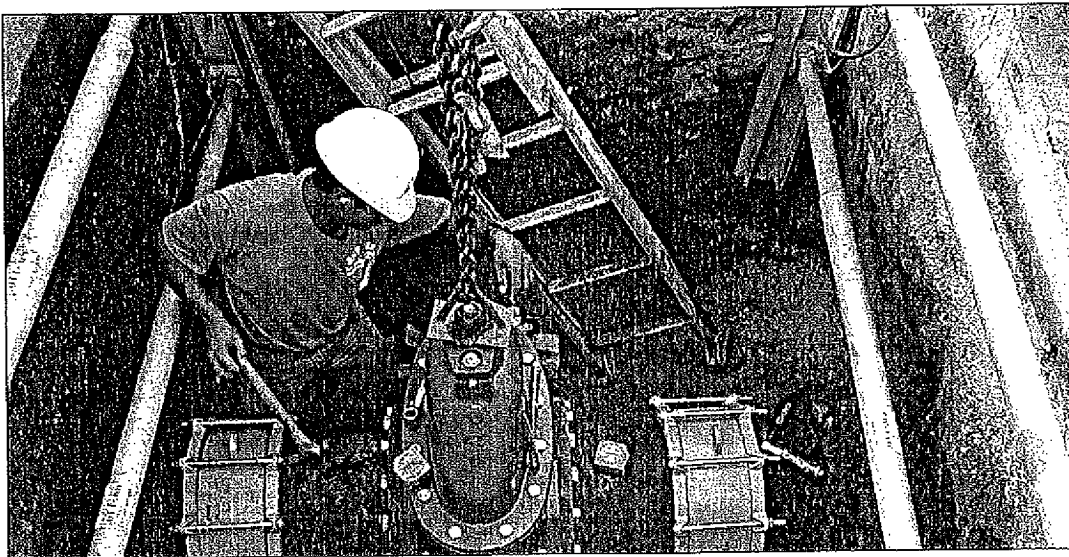


Figure 2-10 A spool piece installed at the entry and exit points for mechanical scrapers

6. Completely isolate the section to be cleaned. Close valves slowly to prevent water hammer.
7. Drain the line to be cleaned.
8. Open entry and exit points and remove spool piece sections. At the entry point, install a spool piece with the cleaning device inside. At the exit point, install discharge piping to bring discharged water up to ground level. Connect a water manifold with a throttle valve to control the rate of travel of the cleaning device.
9. Initiate the required flow into the main, and control speed with a bypass, blowoff valve.
10. Complete the cleaning operation.
11. Reclaim the cleaning device at the exit spool.
12. Repeat additional cleaning passes, as required.
13. Remove the insertion and retrieval sections, and replace permanent spool sections. Backfill and complete other necessary maintenance.
14. Flush and disinfect the line, as required. Conduct tests to determine its C factor following cleaning.
15. Return the line to service.

**Advantages.** Principal advantages of this method include

- Ability to clean long stretches of heavily deposited pipe at 2 to 10 ft/sec (0.6 to 3.0 m/sec) in a single, continuous operation
- Flexibility to negotiate standard bends (with maximum radius equal to 1½ pipe diameters) and elbows, inclined and vertical pipe sections, and to pass line-size gate valves, ball valves, tees, and corporation taps
- Ability to clean water mains with minimal excavation points
- Capability to restore water mains to C factors comparable to newly installed, unlined pipe

## CLEANING BY POWER BORING

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Power boring is a cleaning method using any hydraulically powered device capable of removing tuberculation and encrustation from cast-iron, ductile-iron, and steel pipe from 3 in. (76 mm) in diameter and above. This process is normally carried out in lengths of 400 ft (121 m) or greater. This cleaning method is described in the following paragraphs.

### Rack-Feed Boring Equipment

A rack-feed boring machine (Figure 2-11) is a compact, diesel-powered unit that uses hydraulic pressure to deliver up to 31 horsepower (23.1 kW) to a boring head. The boring head is designed to accommodate spring steel boring rods 15 ft (4.6 m) long fitted with spring-loaded quick-connects for connecting rods into suitable lengths for cleaning various lengths of pipe (Figure 2-12). The end of a boring rod assembly is fitted with a spring steel cutter blade or other cleaning tool, which rotates at 750 rpm through the pipe. (See Figure 2-13.) This cleaning process is conducted against a controlled, upstream water flow to flush loosened debris from the pipe.



## Chapter 3

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# Lining Techniques

A water utility may decide to line its distribution system pipes in response to a number of problems, such as those described in chapter 1. Lining a pipeline can eliminate the need for frequent flushing. Where leakage is a problem, linings have been installed to reduce or eliminate leaks through corroded areas of pipe or bad joints. A smooth lining in a corroding pipe helps to maximize hydraulic carrying capacity and minimize pumping costs. Additionally, some lining systems can correct structural failures, bridge breaks, and missing sections in corroded pipe, thus restoring service through a continuous pipeline.

In-place lining of water mains can be accomplished by one or more of the following general methods:

- Cement-mortar lining
- Epoxy lining
- Slip-lining
- Modified slip-lining
- Cured-in-place lining
- Structural lining
- Internal joint seals
- Pipe bursting

Internal joint seals and pipe bursting methods are discussed in chapters 4 and 5.

Refer to AWWA C651, Disinfecting Water Mains, for guidance on procedures for disinfecting pipelines before returning them to service.

## CEMENT-MORTAR LINING

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When alkaline-containing water comes in contact with iron, a chemical inhibitor against oxidation forms. Because the cement and sand in cement-mortar lining is porous, water can penetrate through the lining to the pipe wall, becoming alkaline in

the process. Consequently, pipe that is lined with cement mortar is protected from oxidation because of the composition of the portland cement.

Cement-mortar linings were first installed in existing pipelines using the centrifugal process in the mid-1930s. However, this method was limited to pipelines large enough for a person to enter. In the 1960s, remote lining processes were introduced. Today, cement mortar is applied to new ductile-iron pipes and most new steel pipes before installation, making this method a standard in the water industry.

Cement mortar is applied to the pipe wall by the rotating head of an electric or air-powered machine. The machine is placed in the pipe at 300 to 1,500 ft (92 to 458 m) intervals, depending on pipe diameter, valve locations, bends, profile, and alignment (Figures 3-1, 3-2, and 3-3). Mortar is pumped to the lining machine through high-pressure hoses or is mechanically delivered. The lining machine is equipped with rotating trowels or a conical drag trowel positioned just behind the dispensing head. As the machine moves through the pipe, it leaves a smooth, troweled (nonstructural) finish.

A reinforced cement-mortar lining may also provide structural improvement. Initially a 0.5-in. (13-mm) thick cement-mortar lining is placed on the pipe wall in the conventional manner without troweling. Using overlapping joints, a wire mesh is placed against the lining, which is then covered by another 0.5-in. (13-mm) troweled cement-mortar lining. The remaining steps in the process are the same as those for an unreinforced lining. This process is generally used to rehabilitate steel lines in poor condition due to extensive corrosion and in lines large enough for a person to enter. The reinforcing wire holds the cement mortar together, even if large holes develop in the pipeline. While this method will not necessarily prevent a blowout, it will extend the useful life of a pipeline.

## Operating Procedures

The following steps describe the common operating procedures used when lining a main with nonstructural cement mortar.

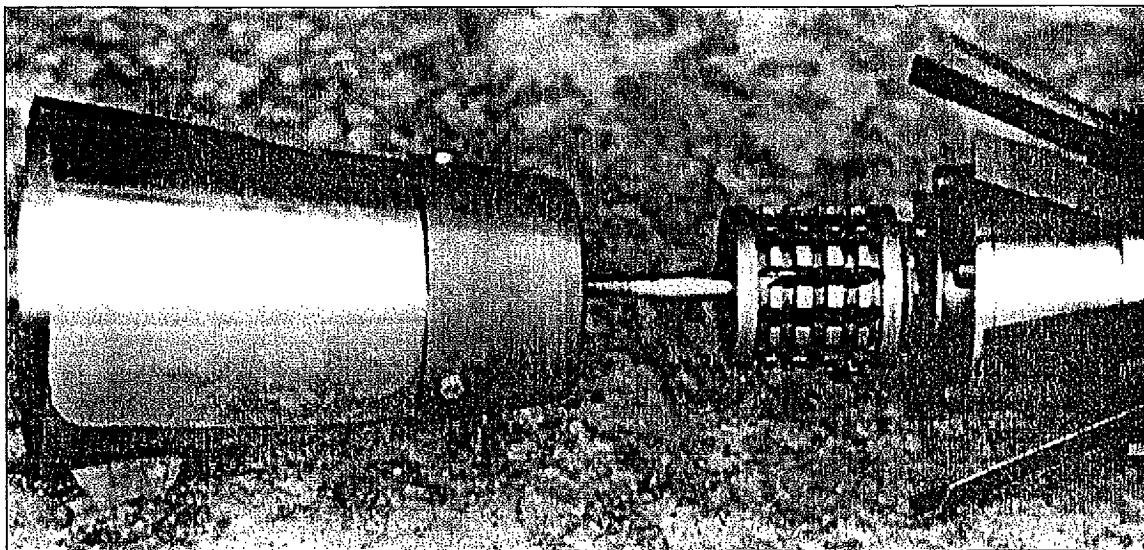


Figure 3-1 A cement-mortar lining machine for use in small-diameter pipe



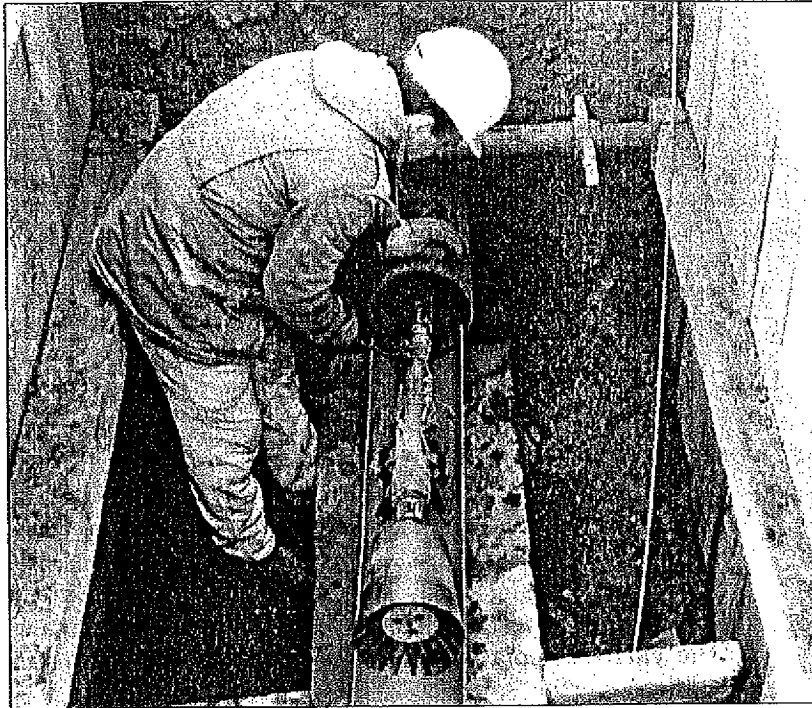


Figure 3-2 Introduction of a small lining machine

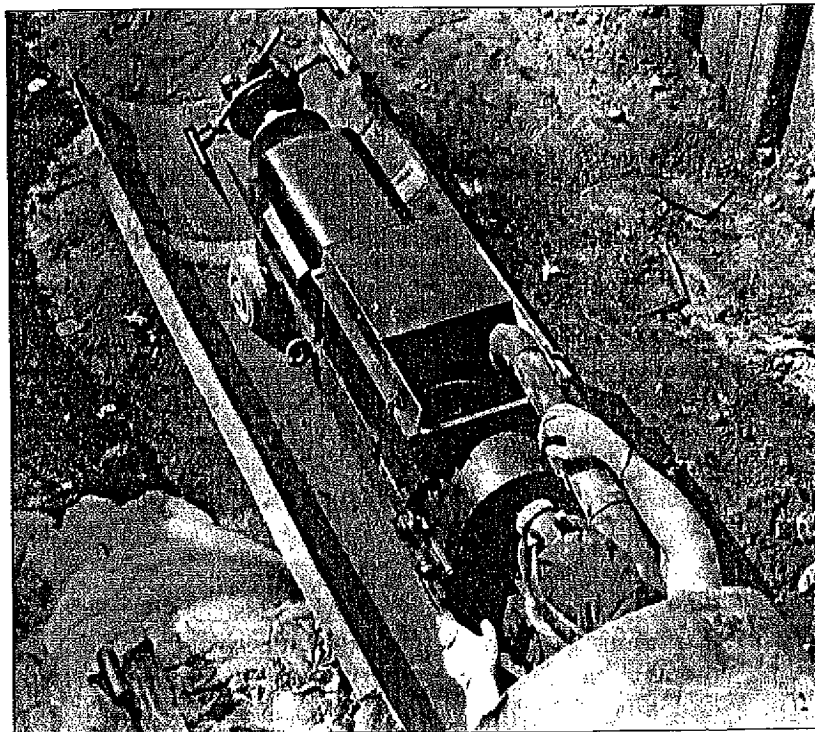


Figure 3-3 A cement-mortar lining machine for use in large-diameter pipe

1. Topography, bends, in-line valves, reduced-diameter in-line valves, and traffic conditions all influence the locations of excavations for access points to allow introduction of the lining equipment. These conditions also affect the method used to clean the pipe. All 22.5°, 45°, and 90° bends must be removed for 12-in. (300-mm) diameter pipe and smaller; 45° and 90° bends must be removed in 16-in. (400-mm) diameter pipe. Pipe 20-in. (500-mm) diameter and larger may require excavations near the bends or removal.

Full-diameter line valves must be removed and replaced, or the bonnets removed to clean the cement mortar from the interior of the valve if the pipe is too small for a person to enter. In large pipe, personnel can clean the valve interior from inside the pipe. Depending on their size, reduced-diameter or obstructed line valves may require removal or excavations on each side of the valves to allow lining.

2. The pipeline is generally dewatered by gravity and/or blowoffs, which remove most of the water. The contractor can then remove any remaining water lying in low spots with rubber squeegees pulled by winch through the pipe. At this time, inspection usually determines whether any branch valves are leaking. If a valve fails to stop water from entering the pipe to be lined, it is reexercised. If the leakage continues, a seal is installed or the valve is replaced. The pipe must be free of water when lining with cement mortar.
3. Cast-iron pipe is cut with a squeeze-type cutter, guillotine saw, handheld mechanical saw, or traveling saw, and a 4- to 5-ft (1.0- to 1.5-m) section of pipe is removed. Steel pipe is cut by torch, and a half cap is removed. Mechanical couplings are used for reconnecting cast-iron pipe, and butt straps are used to reconnect steel pipe.
4. A mixing van or concrete batch plant is located near the access hole where a cement-mortar mixture, consisting of one part silica-type sand and one part type II portland cement, is prepared. The mixed mortar is then delivered to the lining machine by one of several methods, depending on the pipe diameter.
5. In 4- to 24-in. (100- to 600-mm) diameter pipe (sometimes larger), the mortar is pumped through high-pressure hoses to the lining machine. Specially designed winches pull the lining machine through the pipe at a constant speed, ensuring a uniform lining thickness.
6. Mechanical feeding equipment shuttling between the access excavation (where the mortar is mixed) and the lining machine delivers mortar to the lining-machine hopper. The lining-machine operator then regulates the mortar application. Mechanically driven rotating trowels are used with this manually operated equipment.
7. Consumers' service lines and laterals less than 2 in. (50 mm) in diameter must be cleared after the lining application. This is done about 1 hr after the lining is completed, using compressed air to blow open the service line at the connection to the main. Laterals over 2 in. (50 mm) in diameter are not plugged by centrifugal lining and do not require excavation or blow back.
8. Water can be introduced into the line without pressure to allow curing 24 hr after completing the lining. The main can then be chlorinated, tested, and

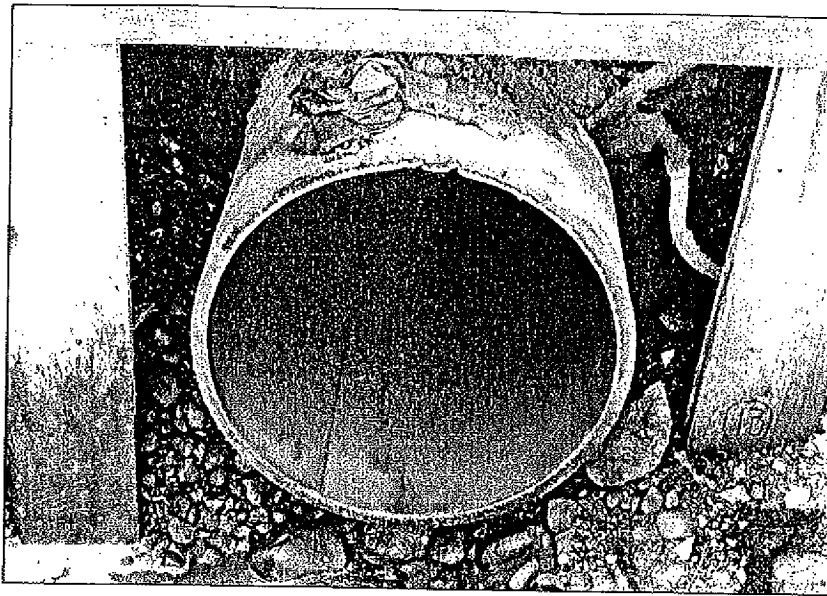


Figure 3-4 A pipe ready to be returned to service four to seven days after cement-mortar lining

returned to service. (Discharge water should be disposed of in accordance with local ordinances. Chlorine may need to be neutralized and the pH adjusted before discharge. Mains with low flow may experience high pH problems for a short time after being returned to service.) Most distribution mains are returned to service between four and seven days after lining (Figure 3-4), depending on valve locations and disinfection requirements.

9. AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place—4 in. (100 mm) and Larger, covers cement-mortar lining of pipelines from 4 in. (100 mm) to 144 in. (3,658 mm) in diameter.

American Water Works Association

**ANSI/AWWA C602-00**

(Revision of ANSI/AWWA C602-95)



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**AWWA STANDARD**  
FOR  
**CEMENT-MORTAR LINING**  
**OF WATER PIPELINES IN PLACE—**  
**4 IN. (100 mm) AND LARGER**



**Return to  
List of Standards**

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**AMERICAN WATER WORKS ASSOCIATION**

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## AWWA Standard

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## American National Standard

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# Foreword

*This foreword is for information only and is not part of AWWA C602.*

## **I. Introduction.**

I.A. *Background.* Cement-mortar lining provides the interior of a ferrous-metal pipe with a smooth finish that protects it from corrosion and tuberculation. The lining can significantly retard the recurrence of these problems in previously used pipe if the pipe has been properly cleaned and repaired before application of the lining. Furthermore, the lining can increase the pipeline's carrying capacity because of the reduction in friction resulting from streamlining surface irregularities.

The use of cement mortar as a protective lining for water mains was reported by the French Academy of Science in 1836. Fourteen years later, cement-lined, coated, sheet-metal pipe was introduced in the United States. Some of the early pipelines were in use for the better part of a century, but it was not until the 1930s that a practical method was developed for lining pipe in place.

The first field trial of in-place cement-mortar lining (of pipe that had been in service) was conducted in Jersey City, N.J., in 1933. The pipe was a short section 72 in. (1,830 mm) in diameter. The favorable outcome of the trial led to the cleaning and lining of more than 27,000 ft (8,230 m) of aged, 48-in. (1,220-mm) riveted-steel pipe supplying Newark, N.J. The lining stopped all leakage and, as a result of streamlining the surface over large rivets, also increased the Hazen-Williams flow coefficient by 14 points (estimated by the engineer).

For many years, the smallest-diameter pipe that could be reconditioned by the centrifugal process was 24 in. (600 mm), because a man was required to ride the lining machine through the pipe. In 1950, a remote-control centrifugal-lining machine was introduced that made in-place lining of progressively smaller-diameter pipe possible. Presently, pipelines ranging from 4 in. (100 mm) to 28 ft (9.2 m) in diameter can be cleaned and cement-mortar lined in place.

I.B. *History.* The first American Water Works Association (AWWA) standard for cement-mortar lining of pipe in place was published in 1939 as part of AWWA C205-41 (formerly 7A-7-41), Standard for Cement-Mortar Protective Lining and Coating for Steel Water Pipe. That standard was primarily concerned with in-plant lining and coating, a completely different process from in-place lining. Therefore, in 1951, the in-place lining portion was withdrawn and expanded into a separate

standard under the direction of the late H.A. Price, who authored most of the new document. That standard, AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place—Sizes 16 In. and Larger, was approved as tentative in 1954 and made standard in 1955.

In 1962, Price suggested to the AWWA Steel Water Pipe Manufacturers Technical Advisory Committee (SWPMTAC) that AWWA C602-55 should be revised in view of the extended competence of the centrifugal-lining process, which at that time included pipe as small as 4 in. (100 mm) in diameter. The assignment was given to SWPMTAC Subcommittee 8 and resulted in the revision of the standard adopted and published in 1967.

In 1972, the standard was again considered for revision to reflect the state of the art of in-place cement-mortar lining. The more frequent use of in-place cement-mortar lining in new, large-diameter steel pipelines prompted the committee to note some of the standard procedures used in this application. This edition was approved on Jan. 25, 1976. The standard was revised in 1983, 1988, and 1995. This edition was approved on June 11, 2000.

*I.C. Acceptance.* In May 1985, the US Environmental Protection Agency (USEPA) entered into a cooperative agreement with a consortium led by NSF International (NSF) to develop voluntary third-party consensus standards and a certification program for all direct and indirect drinking water additives. Other members of the original consortium included the American Water Works Association Research Foundation (AWWARF) and the Conference of State Health and Environmental Managers (COSHEM). The American Water Works Association (AWWA) and the Association of State Drinking Water Administrators (ASDWA) joined later.

In the United States, authority to regulate products for use in, or in contact with, drinking water rests with individual states.\* Local agencies may choose to impose requirements more stringent than those required by the state. To evaluate the health effects of products and drinking water additives from such products, state and local agencies may use various references, including:

1. An advisory program formerly administered by USEPA, Office of Drinking Water, discontinued on Apr. 7, 1990.
2. Specific policies of the state or local agency.

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\*Persons in Canada, Mexico, and non-North American countries should contact the appropriate authority having jurisdiction.

3. Two standards developed under the direction of NSF: ANSI<sup>\*</sup>/NSF<sup>†</sup> 60, Drinking Water Treatment Chemicals—Health Effects, and ANSI/NSF 61, Drinking Water System Components—Health Effects.

4. Other references, including AWWA standards, *Food Chemicals Codex*, *Water Chemicals Codex*,<sup>‡</sup> and other standards considered appropriate by the state or local agency.

Various certification organizations may be involved in certifying products in accordance with ANSI/NSF 61. Individual states or local agencies have authority to accept or accredit certification organizations within their jurisdiction. Accreditation of certification organizations may vary from jurisdiction to jurisdiction.

Annex A, "Toxicology Review and Evaluation Procedures," to ANSI/NSF 61 does not stipulate a maximum allowable level (MAL) of a contaminant for substances not regulated by a USEPA final maximum contaminant level (MCL). The MALs of an unspecified list of "unregulated contaminants" are based on toxicity testing guidelines (noncarcinogens) and risk characterization methodology (carcinogens). Use of Annex A procedures may not always be identical, depending on the certifier.

AWWA C602-00 does not address additives requirements. Thus, users of this standard should consult the appropriate state or local agency having jurisdiction in order to:

1. Determine additives requirements, including applicable standards.
2. Determine the status of certifications by all parties offering to certify products for contact with, or treatment of, drinking water.
3. Determine current information on product certification.

**II. Special Issues.** This standard has no applicable information for this section.

**III. Use of This Standard.** AWWA has no responsibility for the suitability or compatibility of the provisions of this standard to any intended application by any user. Accordingly, each user of this standard is responsible for determining that the standard's provisions are suitable for and compatible with that user's application.

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<sup>\*</sup>American National Standards Institute, 11 W. 42nd St., New York, NY 10036.

<sup>†</sup>NSF International, 789 N. Dixboro Rd., Ann Arbor, MI 48105.

<sup>‡</sup>Both publications available from National Academy of Sciences, 2102 Constitution Ave. N.W., Washington, DC 20418.

III.A. *Purchaser Options and Alternatives.* The following information should be included in the purchaser's specifications:

1. Project. Diameter, length, and location of pipeline, including plan and profile drawings when available; limits of pipeline shutdowns, if service requirements make these limits necessary; location of access manholes; location, type, and size of valves; location of interconnecting pipelines, hydrant branches, and service pipes; location of fittings and restrictions that could interfere with cleaning and lining operations; location, diameter, and connections of temporary bypass, if required; and all other details of the pipe within the scope of the contract between the purchaser and the constructor.

2. Thickness of cement-mortar lining. Nominal thickness of cement-mortar lining required (Sec. 4.4.5).

3. Services provided by purchaser. Description of all services or field operations to be performed by the purchaser, such as locating the main to be cleaned and lined; removal and replacement of line valves; operation of valves; tagging all valves that separate the main to be cleaned and lined from the water system to prevent accidental opening; shutting off all inflow of water from connecting pipelines; locating and operating blowoffs; connecting and disconnecting temporary bypasses to customer services; obtaining all permits required for the work; handling all customer contacts; disinfection; and conducting flow tests.

4. Additional work to be performed by constructor. Description of work, including repairs to deteriorated pipe; extra thickness of lining over the rivet heads and lockbar seams; excavation, backfill, and resurfacing work at access excavations; method of opening and closing access openings in the pipeline; supplying, laying, and removing temporary bypass pipe; and operation of main-line or blowoff valves.

NOTE: When it is necessary to repair deteriorated pipe before lining, the pipe will be repaired by the purchaser or under provisions of the contract between the purchaser and the constructor.

5. Water for cleaning and lining operations. Location of water sources, method of supplying, quantity available, and pressure information.

6. Disposal of cleaning water and debris. Requirements for the disposal of cleaning water, old lining, and other debris; instructions regarding permits from the responsible authorities.

7. Permissible cement-mortar materials. Preference for, or any restrictions on, type of portland cement or admixtures to be used in lining mortar.

8. Purchaser options. Options that may be included in the purchaser's specifications after reviewing the following items in the sections noted:

- a. Affidavit of compliance (Sec. 6.3).
- b. Portland cement (Sec. 4.3.1).
- c. Use of admixtures (Sec. 4.3.2, 4.4.1, and 4.4.2).
- d. Mortar lining thickness (Sec. 4.4.5).
- e. Access openings (Sec. 4.5.1).
- f. Traffic control (Sec. 4.5.1).
- g. Surface finish (Sec. 4.5.4).
- h. Cleaning of valves; new bolts and gaskets (Sec. 4.5.6.1 and 4.5.6.2).
- i. Curing by purchaser (Sec. 4.5.7.3).
- j. Temporary bypass to customers (Sec. 4.6).
- k. Disinfection of temporary bypass (Sec. 4.6.2).
- l. Leaking valves (Sec. 4.7.2).
- m. Access openings for lining for new pipe (Sec. 4.8.1).
- n. Surface finish for new pipe (Sec. 4.8.4).

III.B. *Modification to Standard.* Any modification to the provisions, definitions, or terminology in this standard must be provided in the purchaser's specifications.

**IV. Major Revisions.** The major changes made to the standard in this edition include the following:

1. The title of the standard was revised.
2. Definitions (Sec. 3) have been revised.
3. References to pozzolanic materials have been removed from Sec. 4.4.
4. Table 1 on recommended thicknesses of cement-mortar linings has been revised.
5. Sec. 5.1 has been revised for sampling and testing frequency and strength of lining.

**V. Comments.** If you have any comments or questions about this standard, please call the AWWA Volunteer and Technical Support Group, (303) 794-7711 ext. 6283, FAX (303) 795-7603, or write to the group at 6666 W. Quincy Ave., Denver, CO 80235.



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# **AWWA STANDARD FOR CEMENT-MORTAR LINING OF WATER PIPELINES IN PLACE— 4 IN. (100 mm) AND LARGER**

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## **SECTION 1: GENERAL**

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### **Sec. 1.1 Scope**

This standard describes the requirements for the materials and application of a cement-mortar lining to the inside surface of 4-in. (100-mm) and larger new and old steel, ductile-iron, and cast-iron water pipelines that have been previously installed, as well as related work. The application requirements are (1) that the lining of all straight pipe sections and long radius bends shall be performed by a machine that progresses uniformly through the pipe, applies cement mortar against the pipe surfaces, and is provided with an attachment for mechanically troweling the mortar to obtain a smooth lining of uniform thickness with smooth transitions over joints; and (2) that the lining of bends, specials, and areas adjacent to valves shall be machine sprayed and hand troweled or, where machine placement is impractical, shall be performed manually.

### **Sec. 1.2 Purpose**

The purpose of this standard is to define the minimum requirements for cement-mortar lining of water pipelines, 4 in. (100 mm) and larger, in place, including materials, design, and methods for construction.

### Sec. 1.3 Application

This standard can be referenced in specifications for cement-mortar lining of water pipelines in place, 4 in. (100 mm) and larger.

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## SECTION 2: REFERENCES

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This standard references the following documents. In their latest editions, these documents form a part of this standard to the extent specified within this standard. In any case of conflict, the requirements of this standard shall prevail.

ASTM\* C40—Standard Test Method for Organic Impurities in Fine Aggregates for Concrete.

ANSI†/ASTM C143—Standard Test Method for Slump of Hydraulic Cement Concrete.

ANSI/AWWA C500—Standard for Metal-Seated Gate Valves for Water Supply Service.

ANSI/AWWA C504—Standard for Rubber-Seated Butterfly Valves.

ANSI/AWWA C509—Standard for Resilient-Seated Gate Valves for Water Supply Service.

ASTM C150—Standard Specification for Portland Cement.

ASTM C494—Standard Specification for Chemical Admixtures for Concrete.

ASTM E11—Standard Specification for Wire Cloth and Sieves for Testing Purposes.

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## SECTION 3: DEFINITIONS

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The following definitions shall apply in this standard:

1. *Constructor*: The party that provides the work and materials for placement or installation.
2. *Purchaser*: The person, company, or organization that purchases any materials or work to be performed.

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\*American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

†American National Standards Institute, 11 W. 42nd St., New York, NY 10036.

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## SECTION 4: REQUIREMENTS

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### Sec. 4.1 Workmanship

All work shall be performed by trained personnel under the supervision of experienced persons skilled in the application of cement-mortar lining to pipelines in place.

### Sec. 4.2 Equipment

The constructor's equipment for cleaning, applying, and troweling cement-mortar in the pipe and for curing the cement-mortar lining shall be so designed and manufactured and in a condition to permit the workers to follow the procedure and obtain the results prescribed in this standard.

### Sec. 4.3 Materials for Construction

4.3.1 *Portland cement.* Portland cement shall conform to the requirements of ASTM C150 for type I or type II cement, or as otherwise specified by the purchaser.

4.3.2 *Admixtures.* To improve workability, density, and strength in the mortar, admixtures conforming to ASTM C494 may be used at the option of the constructor, unless otherwise required by the purchaser's specifications, provided that the ratio of admixture to portland cement does not exceed that used in the qualification tests of ASTM C494. No admixtures shall be used that would have a deleterious effect on potable water flowing in the pipe after the lining has been placed.

4.3.3 *Sand.* Sand shall consist of inert granular material. The grains shall be strong, durable, and uncoated. The sand shall be well graded and shall pass a No. 16 mesh screen, with not more than 5 percent passing a US Standard Sieve No. 100. (For screen and sieve sizes, refer to ASTM E11.)

4.3.3.1 *Deleterious substances in sand.* Sand shall be clean. The total combined weight of dust, clay, loam, lumps, shale, soft or flaky particles, mica, oil, alkali, and other deleterious substances shall not exceed 3 percent of the total combined weight of the deleterious substances and the sand containing them. In addition, the following limitations shall apply to specific substances:

Substance	Maximum Allowable Percentage by Weight
Shale	1
Clay lumps	1
Mica and deleterious substances other than shale and clay lumps	2

4.3.3.2 *Organic impurities.* Sand shall not show a color value darker than the "reference standard color solution" prepared as required in ASTM C40.

4.3.4 *Water.* Water for mixing mortar shall be clean and free of mud, oil, and injurious amounts of organic material or other deleterious substances. Potable water shall be used.

## **Sec. 4.4 General Cement-Mortar Lining Design**

4.4.1 *Composition.* Mortar for the lining shall be composed of cement, sand, and water that have been well mixed and are of such consistency as to produce a dense, homogeneous lining. Unless otherwise specified by the purchaser, the mortar may also include admixtures.

4.4.2 *Proportions.* The approximate proportions of cement and sand in the mortar for the lining shall be 1 part of portland cement to 1-1½ parts of sand by volume. The exact proportions shall be determined by the characteristics of the sand used. Admixtures (Sec. 4.3.2), if added, shall be used in strict compliance with the manufacturer's printed recommendations.

4.4.3 *Water content.* The water content shall be the minimum quantity that produces a workable mixture, allowing for moisture collecting on the interior of the pipe surfaces. Slump tests should be made periodically on freshly mixed mortar immediately before the mortar is conveyed to the lining machine. The tests shall be made in accordance with ANSI/ASTM C143. Nominal slumps of cement-mortar mixes for application of linings are indicated in Figures 1 and 2.

4.4.4 *Mixing.* Mortar shall be mixed long enough to obtain maximum plasticity. The mortar shall be used before initial set.

### **4.4.5 Thickness of lining.**

4.4.5.1 *General requirement.* The lining shall be uniform in thickness within the allowable tolerance, except at joints or deformations in the pipeline. Cement-mortar lining thickness shall be in accordance with Table 1, unless otherwise specified by the purchaser. If a cement-mortar lining thickness greater than ½ in. (13 mm) is required by the purchaser, the constructor shall have the option to apply the mortar lining in multiple applications. The thickness measuring device shall be agreed on by the constructor and purchaser.

4.4.5.2 *Thickness over rivets and lockbar.* The thickness of cement-mortar lining over the top of rivet heads and lockbar longitudinal seams of steel pipe shall not be less than ⅛ in. (3.2 mm), unless otherwise specified by the purchaser.

## Sec. 4.5 Methods for Construction of Rehabilitated Pipelines

4.5.1 *Access openings—general requirements.* All access openings necessary for the lining work shall be prepared and closed by the constructor, unless otherwise specified in the purchaser's specifications. Traffic control shall be as defined in the purchaser's specifications.

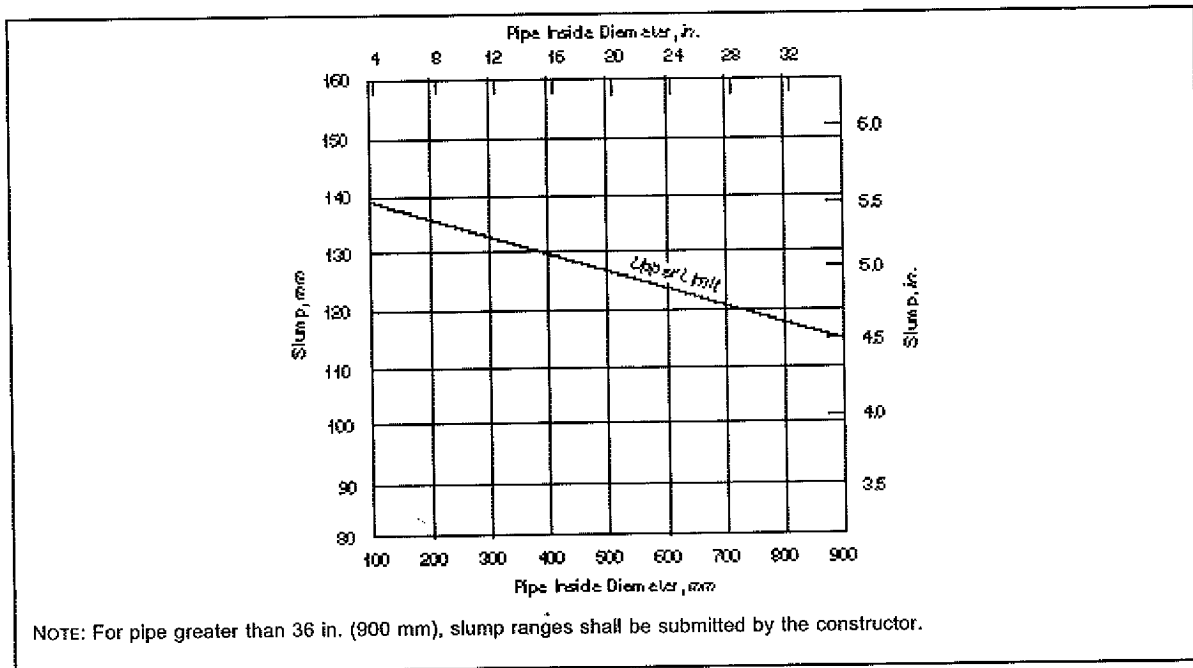


Figure 1 Nominal slumps of cement-mortar mixes for application of pipe linings using pump feed

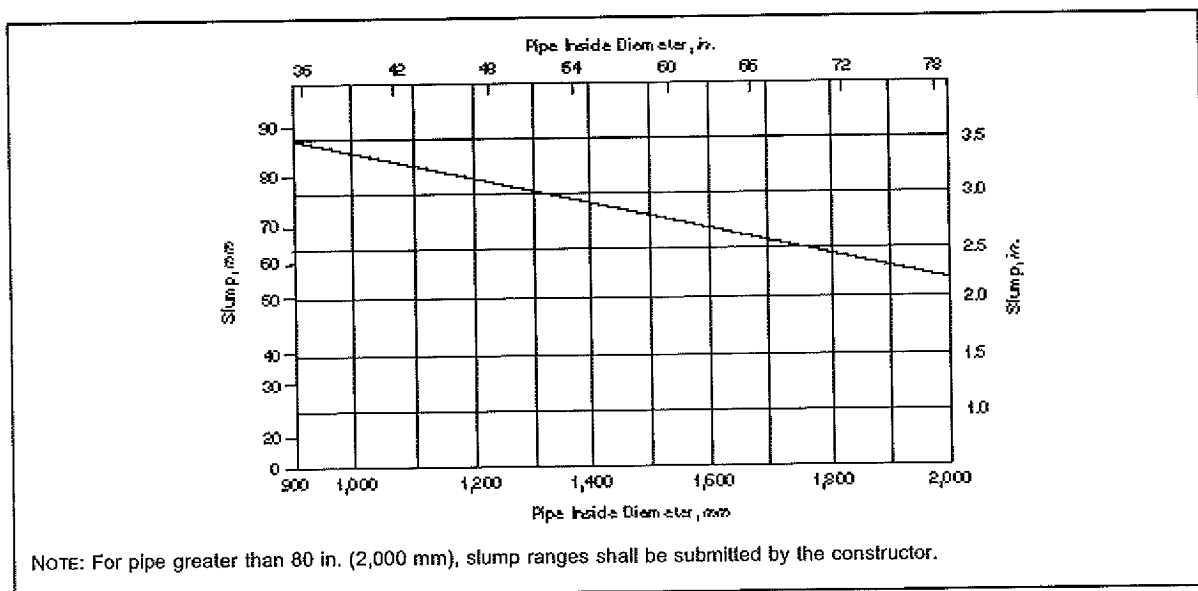


Figure 2 Slump limits of cement-mortar for application of pipe linings using mechanical feed

Table 1 Recommended thickness of cement-mortar lining for pipelines in place

Table 1. Recommended thickness of carbon steel pipe									
Pipe Diameter		Type of Pipe							
		Old Steel		Old and New Gray Cast Iron and Ductile Iron		New Steel		Tolerance	
		<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>
4-10	100-250	$\frac{5}{16}$	8	$\frac{3}{16}$	4.8	$\frac{1}{4}$	6.3	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
11-23	280-580	$\frac{3}{8}$	10	$\frac{1}{4}$	6.4	$\frac{5}{16}$	8	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
24-36	600-900	$\frac{7}{16}$	11.1	$\frac{5}{16}$	8	$\frac{3}{8}$	10	$-\frac{1}{16}, +\frac{1}{8}$	-1.6, + 3.2
≥36	≥900	$\frac{9}{16}$	14.3	$\frac{5}{16}$	8	$\frac{1}{2}$	13	$-\frac{1}{16}, +\frac{3}{16}$	-1.6, + 4.8

NOTE: For badly deteriorated pipe or abnormal use, the purchaser should specify a greater thickness of lining as engineering judgment indicates.

#### 4.5.2 Preparation of pipe surface.

4.5.2.1 Cleaning interior. The interior surfaces of pipe to be lined shall be cleaned by methods approved by the purchaser to remove corrosion products; chemical or other deposits; loose and deteriorated remains of old lining materials; oil; grease; and accumulations of water, dirt, and debris. When the method of cleaning the pipe does not include the use of water, laterals less than 2 in. (50 mm) in diameter shall be cleared after cleaning by backflushing with air or water wherever necessary or as required by the purchaser.

4.5.2.2 Lockbar or riveted steel pipe. The area adjacent to the lockbar or rivets shall be inspected after initial cleaning and may require cleaning by hand before lining.

#### 4.5.3 Machine application of mortar lining.

4.5.3.1 Cleanup ahead of machine. Immediately before the lining machine travels through a pipeline, all foreign material shall be removed. This includes sand and loose mortar that might have accumulated since the preparation of surfaces was completed.

4.5.3.2 Lining procedure. The lining shall be applied in one or more courses by a machine traveling through the pipe and distributing the mortar uniformly across the full section and long radius bends of the pipe. The discharge shall be from the rear of the machine so that the newly applied mortar will not be marked. The rate of travel of the machine and the rate of mortar discharge shall be mechanically regulated to produce a smooth surface and uniform thickness throughout. The mortar shall be densely packed and adhere wherever applied; there shall be no injurious rebound.

4.5.3.3 Procedure at rivets and open joints. In steel pipe 24 in. (600 mm) and larger in diameter, mortar may be applied manually ahead of the lining machine for uniform thickness over the line of rivet heads and where steel plates overlap. Open joints shall be packed with mortar before lining where necessary to provide a smooth surface across the joint. The mortared areas shall be moist and free of surface checking before proceeding with the machine lining.

4.5.4 *Surface finish.* The mortar lining in all pipe of the diameters described in this standard shall be mechanically troweled except for the places where hand troweling or the placement of an untroweled lining is expressly allowed by this standard (Sec. 4.5.4.2).

4.5.4.1 Troweled linings. The lining machine shall be provided with attachments for mechanically troweling the mortar. Both the application and troweling of the mortar shall take place at the rear of the machine so that the freshly placed and troweled mortar will not be damaged. The trowel attachment shall be such that the pressure applied to the lining will be uniform and produce a lining of uniform thickness with a smooth, finished surface, free of spiral shoulders. The finished surface of machine-placed troweled linings in pipe 24 in. (600 mm) and larger in diameter shall be examined as described in Sec. 4.5.4.1.1 and shall meet the performance criteria in Sec. 5.2.7.

4.5.4.1.1 Procedures. In the reach of pipe 24 in. (600 mm) and larger in diameter that has been lined and troweled in each day's run, 10 places shall be selected in straight sections of the pipe according to a predetermined sampling method agreed on by the purchaser and constructor. In each of the 10 places, a 12-in. (300-mm) straightedge shall be laid parallel to the axis of the pipe. In 9 of the 10 places, the space between the lined surface and the straightedge shall at no point be greater than  $\frac{1}{16}$  in. (1.6 mm) for smooth-bore pipe in good condition and  $\frac{1}{8}$  in. (3.2 mm) for pipe with a rough or irregular interior. This test shall not apply in places where the unlined pipe is too rough or irregular for the required tolerances to be met by machine lining.

4.5.4.2 Untroweled linings. The finished surface shall be smooth and regular, except that it may exhibit a slightly dimpled appearance similar to the surface of an orange. Ridges or uneven buildup caused by irregularity in the travel rate of the machine shall not be allowed.

4.5.4.2.1 Allowable untroweled lining. Untroweled cement-mortar lining is acceptable in the lining of dead-end sections, in the lining of pipe that is excessively



out of round, and in pipe 20 in. (500 mm) in diameter and smaller, when lining pipeline segments containing cocked joints, sharp bends, and angle points.

4.5.5 *Hand application of mortar lining.* Hand-placed mortar shall have a uniform surface with smooth transitions to adjacent machine-placed linings.

4.5.5.1 Allowable hand placement. In pipe 24 in. (600 mm) and larger in diameter, in places where machine placing of cement-mortar lining is impractical (such as sharp bends, specials, or areas closely adjacent to valves), lining shall be performed by hand. The purchaser may permit the correction of any defect by hand application.

4.5.5.2 Materials. Cement mortar for handwork shall be of the same materials as the mortar for machine-placed lining.

4.5.5.3 Cleaning. Areas to be lined shall be cleaned as specified in Sec. 4.5.2 and, if necessary, shall be moistened with water immediately before placing the hand-applied mortar.

4.5.5.4 Troweling. Steel finishing trowels shall be used for the hand application of cement mortar, except at bends. The outer edges of hand-troweled areas may be brushed to reduce the abutting offset.

4.5.5.5 Timing. All hand-finishing work in a section of pipeline shall be completed within 24 hr after completion of the machine application of mortar lining to that section. If necessary, application of mortar lining by machine shall be delayed or stopped to ensure compliance with this schedule.

4.5.6 *Special requirements at laterals and service connections.* Laterals and connections to the pipe that are being lined shall not be left obstructed by the lining operations.

4.5.6.1 Pipe less than 24 in. (600 mm) in diameter. After the mortar lining has been placed, but before it takes final set, laterals and services 2 in. (50 mm) and smaller in diameter shall be cleared by backflushing with air or water wherever necessary or as required by the purchaser. The backflushing shall be performed in a manner that will not damage the freshly applied lining. Unless a lateral is to be cleaned and lined, it shall not be excavated. The constructor shall clean all interior surfaces of main-line valves after the lining machine has passed. The constructor may, with the purchaser's approval, remove the bonnets and gates from main-line gate valves to accomplish the cleaning; the bonnets and gates shall then be replaced. The constructor shall, with the purchaser's approval, remove all butterfly valves from the main line when necessary and then reinstall them after the lining operation. New

bolts and gaskets for bonnet or valve replacements meeting the requirements of the applicable AWWA valve standard (ANSI/AWWA C500, ANSI/AWWA C504, or ANSI/AWWA C509) shall be supplied by the constructor, unless otherwise provided by the purchaser's specifications.

4.5.6.2 Pipe 24 in. (600 mm) and larger in diameter. Before the lining is placed, the openings in the pipeline that lead to air valves, blowoffs, manholes, and appurtenances, as well as to laterals and connections from the pipeline, shall be temporarily covered or plugged with suitable devices. These shall be removed later without damaging the cement mortar. When working inside the pipe is impractical, the constructor may clear connecting pipelines by flushing and, with the purchaser's approval, clean gate valves by removing bonnets and gates. The constructor shall, with the purchaser's approval, remove all butterfly valves from the main line when necessary. New bolts and gaskets for bonnet or valve replacement that meet the requirements of the applicable AWWA valve standard shall be supplied by the constructor, unless otherwise provided by the purchaser's specifications.

#### 4.5.7 *Curing.*

4.5.7.1 General requirements. Curing operations shall begin immediately following completion of the machine placement of the mortar lining in a section of pipeline. The section of pipe shall be closed with airtight covers over all openings and shall be maintained in a moist condition.

4.5.7.2 Curing by constructor. When a section of pipeline has been completed, the constructor shall be responsible for curing the mortar lining until the section is filled with water by the purchaser, or until the lining has been accepted by the purchaser, but in no case for more than seven days. In the event that the purchaser cannot fill the pipeline within seven days after the lining has been placed, or within the time specified by the purchaser, the constructor may be directed to extend the curing period.

4.5.7.3 Curing by purchaser. Sections of the mortar-lined pipe shall be filled with water as soon as possible after lining operations in such a manner as not to damage the lining. There shall be no pressure on any section until the mortar lining has been in place for at least 24 hr, except for pressure induced by variations in the grade of the pipeline. The filling shall be performed by the purchaser unless the purchaser's specifications stipulate otherwise.

4.5.7.4 Sprinkling exterior. The exterior surfaces of pipe exposed to sunlight shall be sprinkled with water in the daytime during the period of lining, finishing,

and curing when sprinkling is required, as determined by the constructor or the purchaser, to prevent cracking of the lining.

## **Sec. 4.6 Temporary Bypass to Customers**

**4.6.1 General description.** Temporary bypass facilities may be required to maintain service to customers connected to pipelines being cleaned and cement-mortar lined. It shall be the purchaser's responsibility to design the bypass system, including a layout of the bypass piping, customers to be serviced, the specified bypass pipe diameter to be used in specific locations, as well as the type and locations of temporary fire hydrants. When required by the purchaser, the constructor shall provide, install, maintain, and remove temporary bypass pipelines in accordance with the purchaser's specifications.

**4.6.2 Pipe and materials.** The pipe, hose, and other materials shall be supplied by the constructor for use in conjunction with temporary bypass pipe and connections to services and laterals. These materials shall withstand the pressures indicated and all other conditions of use. The pipe and fittings shall be watertight and shall be disinfected before being put into service. Disinfection shall be performed by the constructor unless the purchaser's specifications stipulate otherwise.

**4.6.3 Procedure.** Temporary bypass facilities shall include hoses and necessary outlets and fittings to each service connection. The constructor shall provide, install, and maintain the temporary bypass lines in a safe and operative condition at all times. After service has been restored to a section of water main, the constructor shall remove the temporary bypass and related facilities and shall leave the work site in a neat and orderly condition.

**4.6.4 Supply of water to feed temporary bypass.** The purchaser shall be responsible for the availability of water at sufficient pressure and in sufficient volume to supply the bypass system. The purchaser shall provide taps or other suitable feed points to which the bypass may be connected. If there are no hydrants or aboveground taps at convenient locations for bypass connection, the purchaser shall either install outlets on the system as required or direct the constructor to install the connections.

**4.6.5 Temporary connection to customers.** Before starting any work that will affect service to customers, the constructor shall notify the purchaser in advance to allow the purchaser to notify all customers accordingly. All shutoffs to customer service lines and all connections from the bypass line to the customer service lines shall be made by the constructor. If required by the purchaser, bypass service

connections requiring excavation, cutting, or tapping shall be made by the constructor unless specifically included in the purchaser's specifications. After the pipeline has been cleaned and lined, the constructor shall clear the service lines by backflushing with air or water. Where it is impossible to clear the service line because the customer's premises cannot be entered, the constructor shall excavate and clear the service at the main. The restoration of service to the customer, including disconnection from the bypass system and reconnection to the pipeline, is the constructor's responsibility unless otherwise required by the purchaser's specifications.

## **Sec. 4.7 Contingent Work**

**4.7.1 Obstructions.** Obstructions in the pipeline that prohibit the passage of cleaning or lining equipment shall be removed by the constructor. These include, but are not limited to

1. Bends, reducers, valves, or other fittings not indicated on drawings provided by the purchaser.
2. Overpoured lead joints.
3. Deformations in the pipe wall, out-of-round pipe, or defective pipe.
4. Protruding lateral or service connections.
5. Internal tie rods.
6. Successive cocked joints.

**4.7.2 Leaking valves.** The purchaser shall be responsible for preventing water from existing connections from entering the pipe before lining has been completed. The purchaser shall be responsible for the repair or replacement of leaking sideline valves as soon as discovered. The purchaser's specifications may require the constructor to do the actual work of repair or replacement, but even if not so required, the constructor shall be permitted, if the purchaser fails to act immediately, to excavate on one side or the other of the leaking valve, cut the pipe, and stop the leakage.

## **Sec. 4.8 Methods for Lining of New Steel Pipe**

**4.8.1 Access openings for lining.** The constructor may use existing manholes, flanged outlets, and pass holes for access and material feed points during the lining operations. Access openings shall be removed or replaced in accordance with purchaser's specifications. Cement-mortar lining of closures and adjacent areas shall be applied by machine or hand methods. Access to the pipeline for placing

field-applied cement-mortar lining may be obtained by one or more of the following methods:

1. Temporarily omitting short "roll-out" sections of pipe.
2. Deferring the installation of closing sections of pipe until after completion of the lining.
3. Cutting "half-cap" openings in the installed pipeline.
4. Cutting temporary feed-point manholes in the installed pipeline.

**4.8.2 Preparation of pipe surfaces.** The interior surface of the pipeline shall be cleaned before placement of cement-mortar lining. The pipe interior surface shall be free of oil, grease, and accumulations of water. Loose mill scale, dirt, rust, and construction debris shall be removed from the interior surface of the new pipeline. This may be performed by using a stiff street broom in large pipe or a drag brush in small pipe. Shot or sandblasting shall not be required.

**4.8.3 Machine application of cement-mortar lining.**

**4.8.3.1 Cleanup ahead of machine.** Immediately before the travel of the lining machine through a pipeline, all foreign material, such as sand, loose mortar, dirt, and debris shall be removed.

**4.8.3.2 Lining procedure.** The lining shall be applied in one or more courses by a machine traveling through the pipe and distributing the mortar uniformly across the full section and long radius bends of the pipe. The discharge shall be from the rear of the machine so that the newly applied mortar will not be marked. The rate of travel of the machine and the rate of mortar discharge shall be mechanically regulated to produce a smooth surface and uniform thickness throughout. The mortar shall be densely packed and adhere wherever applied; there shall be no injurious rebound.

**4.8.3.3 Procedure at joints.** Joints shall be packed with mortar before lining where necessary to provide a smooth surface across the joint. These mortared areas shall be moist and free of surface checking before proceeding with the machine lining over the joint area.

**4.8.4 Surface finish.** The mortar lining in all pipe of the diameters described in this standard shall be mechanically troweled except for the places where hand troweling or the placement of an untroweled lining is expressly allowed by this standard. (Sec. 4.8.4.2.1).

**4.8.4.1 Troweled linings.** The lining machine shall be provided with attachments for mechanically troweling the mortar. Both the application and troweling of

the mortar shall take place at the rear of the machine so that the freshly placed and troweled mortar will not be damaged. The trowel attachment shall be such that the pressure applied to the lining will be uniform and produce a lining of uniform thickness with a smooth, finished surface, free of spiral shoulders. The finished surface of machine-placed troweled lining in pipe 24 in. (600 mm) and larger in diameter shall be examined as described in Sec. 4.5.4.1.1 and shall meet the performance criteria in Sec. 5.2.7.

4.8.4.2 Untroweled linings. The finished surface shall be smooth and regular except that it may exhibit a slightly dimpled appearance similar to the surface of an orange. Ridges or uneven buildup caused by irregularity in the travel rate of the machine shall not be allowed.

4.8.4.2.1 Untroweled lining may be allowed in sections of a pipeline where the pipe to be lined is excessively out of round.

4.8.5 *Hand application of cement-mortar lining.* Hand-placed mortar shall have a uniform surface with smooth transitions to adjacent machine-placed lining.

4.8.5.1 Allowable hand placement. In pipe 24 in. (600 mm) and larger in diameter, in places where machine placing of cement-mortar lining is impractical, (such as sharp bends, specials, or areas closely adjacent to valves), lining shall be performed by hand.

4.8.5.2 Materials. Cement mortar for handwork shall be of the same materials as the mortar for machine-placed lining.

4.8.5.3 Cleaning. Areas to be lined shall be cleaned as specified in Sec. 4.8.2 and, if necessary, shall be moistened with water immediately before placing the hand-applied mortar.

4.8.5.4 Troweling. Steel finishing trowels shall be used for the hand application of cement mortar, except at bends. The outer edges of hand-troweled areas may be brushed to reduce the abutting offset.

4.8.5.5 Timing. All hand-finishing work in a section of pipeline shall be completed within 24 hr after completion of the machine application of mortar lining to that section. If necessary, application of mortar lining by machine shall be delayed or stopped to ensure compliance with this schedule.

4.8.6 *Special requirements at openings.* Laterals and connections to the pipe being lined shall not be left obstructed by the lining operations. Openings in the pipeline for manholes, outlets, and blowoffs shall be temporarily closed and covered with removable coverings or other suitable devices to prevent the intrusion of the

cement mortar into the openings. On completion of the lining, the constructor shall remove all of these covers and shall repair any lining damaged in the process.

#### 4.8.7 *Curing.*

4.8.7.1 General requirements. Curing operations shall begin immediately following completion of the machine placement of the cement–mortar lining in a section of pipeline. The section of pipe shall be closed with airtight covers over all openings, and the lining shall be maintained in a moist condition. The pipeline shall remain closed and the moist atmosphere maintained until the pipeline is filled.

4.8.7.2 Curing by constructor. When a section of pipeline has been completed, the constructor shall be responsible for careful curing of the cement–mortar lining until the section is filled with water by the purchaser, or until the lining has been accepted by the purchaser, but in no case for more than seven days. In the event that the purchaser cannot fill the pipeline within seven days after the lining has been placed, or within the time specified by the purchaser, the purchaser may direct the constructor to extend the curing period.

4.8.7.3 Curing by purchaser. Sections of the mortar-lined pipe shall be filled with water as soon as possible after lining operations in such a manner as not to damage the lining. There shall be no pressure on any section until the mortar lining has been in place for at least 24 hr, except for pressure induced by variations in the grade of the pipeline. The filling should be performed by the purchaser, unless the purchaser's specifications stipulate otherwise.

4.8.7.4 Sprinkling exterior. The exterior surfaces of pipe exposed to sunlight shall be sprinkled with water and kept moist in the daytime during the period of lining, finishing, and curing when sprinkling is required, as determined by the constructor or the purchaser, to prevent cracking of the lining.

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## SECTION 5: VERIFICATION

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### Sec. 5.1 Inspection

All materials provided and work performed will be subject to inspection. The constructor shall provide, without additional cost to the purchaser, samples and reasonable assistance for the inspection of materials and workmanship.

5.1.1 *Sampling and testing frequency.* A set of at least two standard test cylinders shall be made each day from the cement–mortar lining for each shift to

satisfy the quality control requirements of Sec. 5.1.2. Additional cement–mortar testing shall be defined in the purchaser’s specifications.

5.1.2 *Strength of cement–mortar lining.* Cement–mortar test cylinders shall attain a minimum compressive strength of 4,500 psi (31 MPa) in 28 days. Pipe with cement–mortar lining that does not meet the strength requirements described in this standard shall be subject to rejection.

## **Sec. 5.2 Inspection of Rehabilitated Pipelines**

5.2.1 *Responsibility of purchaser and constructor.* The entire procedure for applying cement–mortar lining may be subject to continuous inspection by the purchaser, but the inspection shall not relieve the constructor of the responsibility to provide material and perform work in accordance with this standard.

5.2.2 *All phases accessible to purchaser.* The purchaser shall have free access to all areas, places, or facilities concerned with the providing of material or the performance of work according to the provisions of this standard.

5.2.3 *Constructor to assist purchaser.* The constructor shall provide the purchaser reasonable assistance, without additional charge, in performing inspection duties and, specifically, in obtaining information concerning the material used and the progress of the work.

5.2.4 *Pipe inspection procedures.* The purchaser may inspect the pipeline following the application of the cement–mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with this standard.

5.2.4.1 *Small-pipe inspection procedure.* The inspection of the lining in pipe that is too small for a person to enter, less than 24-in. (600-mm) inside diameter (ID), may be made by television or from both ends of the lined pipe segment by using strong lights or mirrors. The purchaser may determine the quality of the lining from this visual inspection. Where practical, on pipelines that are less than 24-in. (600-mm) ID, the lining may be inspected by the purchaser before the lining has attained its initial set. (It is not practical to remove defective cement–mortar lining that has reached its initial set.)

5.2.4.2 *Large-pipe inspection procedure.* In pipe 24-in. (600-mm) ID and larger, a manual, visual inspection of the lined pipe interior may be made by the purchaser to determine the quality of the lining and to identify defective areas in the lining for repair. Physical inspection shall adhere to appropriate safety precautions for confined spaces.



5.2.5 *Defective lining.* Defects in cement–mortar lining include, but are not limited to, sand pockets, voids, oversanded areas, excessively cracked and drummy areas, areas of lining thinner than specified, and areas of unsatisfactory surface finish.

5.2.6 *Repair of defective lining.*

5.2.6.1 Pipe less than 24-in. (600-mm) ID. In pipe less than 24-in. (600-mm) ID, the defective lining shall be removed in total from the pipe segment before the lining has reached its initial set. The pipe segment shall then be relined in full compliance with project specifications. Defective lining rejected after initial set shall be repaired by the most practical method as determined by the purchaser, in consultation with the constructor.

5.2.6.2 Pipe 24-in. (600-mm) ID and larger. In pipe 24-in. (600-mm) ID and larger, defects in lining shall be repaired. Small defective areas shall be repaired by manual removal of the defective lining and reapplication of cement–mortar lining. Defective areas encompassing the full diameter of the pipe shall be replaced by machine wherever practical.

5.2.7 *Guarantee and performance criteria.*

5.2.7.1 Guarantee. If an examination by the purchaser of the cement–mortar lining work within a period of one year after final completion and acceptance of the work reveals evidence of defective materials or workmanship as defined in this standard, then the purchaser shall act according to the remedies in Sec. 5.2.6 of this standard. The constructor shall bear the expense and perform the repair of defective work in a manner acceptable to the purchaser.

5.2.7.2 Performance criterion—surface finish. The Hazen–Williams  $C$  factor ( $C_{hw}$ ) is a generally accepted criterion for determining the acceptability of surface finish of cement–mortar lining and restoration of carrying capacity in rehabilitated pipelines. Table 2 and Sec. 5.2.7.1 are given as a guarantee for acceptable performance in smooth-bore pipe.

### **Sec. 5.3 Inspection of New Steel Pipe**

5.3.1 *Responsibility of purchaser and constructor.* The entire procedure of applying cement–mortar lining may be subject to continuous inspection by the purchaser, but this inspection shall not relieve the constructor of responsibility to provide material and perform work in accordance with this standard.

Table 2 Acceptable performance for smooth-bore pipe

Pipe Inside Diameter		Guaranteed
<i>in.</i>	( <i>mm</i> )	$C_{hw}$ Factor*
4	(100)	90
6	(150)	100
8	(200)	110
10	(250)	115
12	(300)	120
14–20	(300–350)	125
>20	(>500)	130

\*Based on nominal inside of pipe diameter before cement–mortar lining. The purchaser may specify that flow tests be conducted by an independent testing firm, by the constructor, or by the purchaser. The purchaser may establish liquidated damages to be assessed against the constructor when the lined pipe does not achieve the guaranteed  $C_{hw}$  factor.

5.3.2 *All phases accessible to purchaser.* The purchaser shall have free access to all areas, places, or facilities concerned with the providing of material or the performance of work according to the provisions of this standard.

5.3.3 *Constructor to assist purchaser.* The constructor shall provide the purchaser reasonable assistance, in performing the inspection duties and specifically in obtaining information concerning the material used and the progress of the work.

5.3.4 *Pipe inspection procedures.* The purchaser may inspect the pipeline following the application of the cement–mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with this standard.

5.3.4.1 *Small-pipe inspection procedure.* The inspection of lining in pipe that is too small for a person to enter, less than 24-in. (600-mm) ID, may be made by television or from both ends of the lined pipe segment by using strong lights or mirrors. The purchaser may determine the quality of the lining from this visual inspection. Where practical, on pipelines that are less than 24-in. (600-mm) ID, the lining may be inspected by the purchaser before the lining has attained its initial set.

5.3.4.2 *Large-pipe inspection procedure.* In pipe 24-in. (600-mm) ID and larger, a manual, visual inspection of the lined pipe interior may be made by the purchaser to determine the quality of the lining and to identify defective areas in the lining for repair. Physical inspection shall adhere to appropriate safety precautions for confined space.

5.3.5 *Defective lining.* Defects in cement–mortar lining include, but are not limited to, sand pockets, voids, oversanded areas, excessively cracked and drummy

areas, areas of lining thinner than specified, and areas of unsatisfactory surface finish.

5.3.6 *Repair of defective lining.*

5.3.6.1 Pipe less than 24-in. (600-mm) ID. In pipe less than 24-in. (600-mm) ID, the defective lining should be removed in total from the pipe segment before the lining has reached its initial set. The pipe segment shall then be relined in full compliance with project specifications. Defective lining rejected after initial set shall be repaired by the most practical method as determined by the purchaser, in consultation with the constructor.

5.3.6.2 Pipe 24-in. (600-mm) ID and larger. In pipe 24-in. (600-mm) ID and larger, defects in lining shall be repaired. Small defective areas shall be repaired by manual removal of the defective lining and by reapplication of mortar lining. Defective areas encompassing the full diameter of the pipe shall be replaced by machine wherever practical.

5.3.6.2.1 Lining cracks. Temperature and shrinkage cracks in the mortar lining less than  $\frac{1}{16}$  in. (1.6 mm) in width need not be repaired. Cracks wider than  $\frac{1}{16}$  in. (1.6 mm) need not be repaired if it can be demonstrated to the satisfaction of the purchaser that the cracks will heal autogenously under continuous soaking in water. The autogenous healing process may be demonstrated by any procedure that keeps the lining of the pipe continually wet or moist.

5.3.7 *Protection of lining.* Every precaution shall be taken to prevent injury to the lining. Should the constructor damage the lining at any time before completion of the contract, the damage shall be repaired conforming to the requirements of this standard.

5.3.8 *Guarantee and performance criteria.*

5.3.8.1 Guarantee. If an examination by the purchaser of the cement-mortar lining work within a period of one year after final completion and acceptance of the contract work reveals evidence of defective materials or workmanship as defined in this standard, then the purchaser shall act according to the remedies in Sec. 5.3.6 of this standard. The constructor shall perform the repair of defective work in a manner acceptable to the purchaser.

5.3.8.2 Performance criterion—surface finish. The Hazen-Williams  $C$  factor ( $C_{hw}$ ) is a generally accepted criterion for determining the acceptability of surface finish of cement-mortar lining in pipelines. (Table 2 and Sec. 5.3.8.1 are given as guarantees to acceptable performance in smooth-bore pipe.)

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## SECTION 6: DELIVERY

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### **Sec. 6.1 Marking**

This standard has no applicable information for this section.

### **Sec. 6.2 Shipping**

This standard has no applicable information for this section.

### **Sec. 6.3 Affidavit of Compliance**

The purchaser may require the constructor to provide an affidavit of compliance or material test reports stating that the materials used were in compliance with the requirements of this standard. The affidavit shall be signed by the constructor.

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# **History and Development Of Water Main Rehabilitation by In-situ Cement Mortar Lining Technology**

**Joseph Dioslaki**

**Jiangwei Deng**

**Abstract:** The article expatiates on history, development, and technical advantage of Trench-less In-Place Cement Mortar Lining technology, which has been widely accepted for water main rehabilitation in USA.

**Key words:** Trench-less, In-Place Cement Mortar Lining, Water Main Rehabilitation, Technical advantage

Rehabilitation of water mains by trenchless technology methods are widely accepted in the United States. In place rehabilitation of water mains are generally accomplished by the following methods:

- Cement Mortar lining
- Epoxy Lining
- Slip-lining
- Cure-in-place
- Pipe Bursting

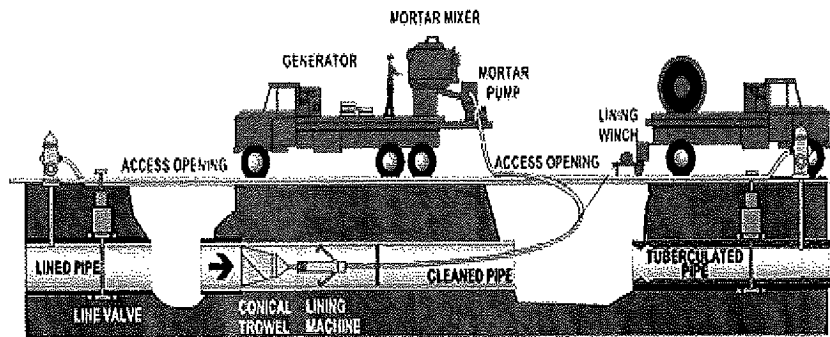
This article will address Cement Mortar Lining technology, the most widely accepted and used technology for the rehabilitation of water mains in the United States of America. The unique benefits of this method have been undiscovered in many communities throughout the world since very few introductions of this process have been made in recent times.

## **In Place Cement Mortar Lining Operating Procedures**

The following steps briefly describe the basic operating procedures:

1. Install Bypass
2. Excavate Access Pits
3. Clean Pipe
4. Apply Mortar
5. Clear Services
6. Cure Mortar

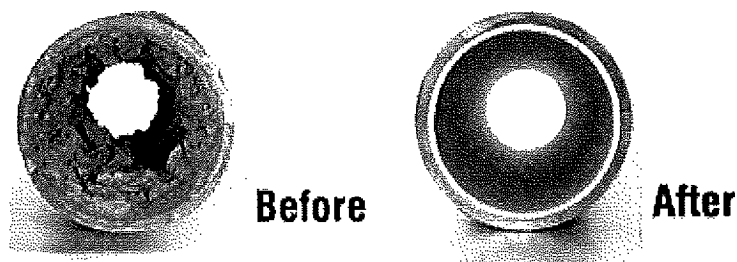
7. Pressure Test Pipe
8. Disinfect Pipe
9. Tie In To Existing System
10. Remove Bypass and Connect Services



In Place Cement Mortar Lining Operating Procedures

### History and Development of Cement Mortar Lining in USA

In the United States of America between 300 and 400 miles (between 482 and 643 km.) of water main are rehabilitated with the **In-Place Cement Mortar Lining Process** each year. This process is the most widely accepted and used technology for the rehabilitation of water mains in existence. Through the early 2000's it is estimated that over 7,000 miles (11,265 km.) of water main, ranging in diameter from 3 inches to 336 inches (7.6 cm. to 850 cm.), have been rehabilitated throughout the world by this in-place cement mortar lining process. The use of this process far exceeds the combined use of all other rehabilitation methods in existence today. The reasons for this wide acceptance are numerous. Below follows a brief history detailing cement mortar lining's evolution and growth.



Watermain Rehabilitated Before and After

The use of cement mortar as a protective lining for water mains was first reported by the French Academy of Science in 1836. By 1850, cement-lined hand coated riveted steel pipe was introduced in the United States. In the early 1930's a practical method was developed to line pipes using cement mortar by leaving the pipe intact and "in-place". This prompted the first field trial of in-place cement-mortar lining performed in Jersey City, New Jersey on a short section of 72 inch (1,830 mm) diameter steel pipe. The

success of this trial was the prelude to the 1934 cleaning and lining of 27,551 feet (8,397 m) of aged, 48 inch (1,220 mm) riveted-steel pipe supplying Newark, New Jersey. The cement mortar lining increased the Hazen-Williams<sup>1</sup> flow coefficient (from 70 to 124) to exceed its original capacity by covering over rivets and seams creating a smoother contoured pipeline, lessening disturbances in the flow stream. The cement lining also stopped all leakage that previously was occurring at seams and rivets. In 2002 this pipeline was opened, and the cement lining was observed to be in good condition.

In 1939 American Water Works Association (AWWA) published the standard for factory application of cement mortar lining to new pipe<sup>2</sup>. This standard was titled, Standard for Cement Mortar Protective Lining and Coating for Steel Water Pipe. Due to technology limitations, until 1950 the smallest diameter pipe that could be rehabilitated in-place was 24 inch (600 mm) because man entry was required to control the lining machine within the pipe. In 1950, a small diameter centrifugal lining machine that did not require man entry was developed, allowing the in-place lining of smaller diameter pipelines. As a result, in 1955 the in-place lining standard titled, AWWA C602, Standard for Cement-Mortar Lining of Water Pipelines in Place, Sizes 16 In. and Larger was published. By 1962 in-place cement mortar lining included pipe as small as 4 inches (100 mm) in diameter. The most recent update of this AWWA standard is dated 2000. Today technology permits in-place cement mortar lining of pipelines ranging in diameter from 3 inches (75 mm) to 28 feet (9.2m).

Beginning in the mid 1950's, a phased program by the AWWA required larger diameter water mains to be installed with an internal cement mortar lining to prevent internal corrosion and tuberculation. This requirement was the catalyst for the factory applied cement mortar lining that coats internal surfaces of new steel and ductile iron water mains being installed today. By 1965 the AWWA completed the phasing program and *required that all new steel and cast iron water mains be installed with an internal cement mortar lining*. It is clear that the benefits of cement mortar lining were understood. Since the water distribution grids in major cities throughout the United States were already mature before this date, water distributors began to notice flow reductions and discolored water due to iron oxidation and the internal buildup of corrosion. Flow reduction on the larger diameter water mains significantly affected pumping costs, while flow reductions on the smaller diameter mains alarmingly reduced flows available at fire hydrants. It quickly became evident that rehabilitation or replacement were the only options and that in-place cement mortar lining was determined to be the most economical and practical solution.

Programs were instituted to rehabilitate entire city distribution systems in a methodical fashion, starting with large diameter trunk mains, and then continuing with smaller diameter distribution grids. By 2004, some cities such as Los Angeles, California and Louisville, Kentucky had nearly completed their rehabilitation programs, while some cities such as Baltimore, Maryland and Boston, Massachusetts were in the midst of their programs. Yet other cities such as Columbia, South Carolina and Nashville, Tennessee where just beginning their rehabilitation programs.



Today, in-place cement mortar lining of cast iron and steel water mains ranging in size from 3 inches (75mm) to 28 feet (9.2m) in diameter are common practice for the economical rehabilitation of water mains in most major cities throughout the United States. These rehabilitation programs are ongoing. Water distribution agencies familiar with the cement mortar lining process maximize the use of in-place cement mortar lining since it is the most economical rehabilitation technique available. Included among them are:

• Baltimore, Maryland	• Jersey City, New Jersey
• Altoona, Pennsylvania	• Monroe County, New York
• Columbia, South Carolina	• Cleveland, Ohio
• Cincinnati, Ohio	• Los Angeles, California
• Denver, Colorado	• Boston, Massachusetts
• Louisville, Kentucky	• Nashville, Tennessee
• Chicago, Illinois	• Washington Suburban San. Com.
• New Jersey American Water Co.	• Aqua Pennsylvania

These cities and water authorities are just a few of the agencies throughout the country that have ongoing cement mortar lining rehabilitation programs. This process is the most widely accepted and used technology for the rehabilitation of water mains in existence. The cement mortar lining rehabilitation programs throughout the United States have been found to effectively double the useful service life of cast iron, ductile iron, and steel water mains, at 30 to 50 percent of replacement costs.

### **The Unique Technical Properties of In Place Cement Mortar Lining**

The application of cement mortar lining to the interior of ferrous-metal water pipelines (steel, cast iron, ductile iron) provides a smooth protective finish that indefinitely protects against internal corrosion and tuberculation. As such, the lining also prevents the recurrence of internal corrosion and tuberculation in aged water pipelines provided that proper cleaning is performed in preparation for the lining application. The lining increases pipe carrying capacities by reducing friction caused by internal surface irregularities. As a result, water distributors benefit by maximizing hydraulic carrying capacities, minimize pumping costs, preventing customer complaints of discolored water, and economically doubling pipe service life expectancies by up to 75 years.

### **Corrosion Prevention and Hydraulic performance of Cement Mortar Lining**

Cement mortar linings are unique, in that they are porous structures. Corrosion protection is achieved by the development of a highly alkaline environment within the pores. This environment is a result of the production of calcium hydroxide during cement hydration. Cement Mortar Lining (CML) is a positive way to prevent corrosion on the interior surface of cast iron pipe once and for all. The CML maintains an alkali surface on the cast iron (or ductile iron) pipe that effectively prevents corrosion for as long as the lining remains in the pipeline. This is much better than "barrier to corrosion" or a coating

system that works as a barrier and tries to prevent corrosion by keeping moisture from coming into contact with the pipe.

In addition to the water quality improvement, cement mortar lining can greatly increase the hydraulic performance of the water main. Pipeline's Hazen-Williams C factor could achieve 130~140 after being rehabilitated by cement mortar lining, which is approximately equal to new HDPE and FRP pipe (C factor is about 140). But CML typically costs less than 50% of replacement costs, and has a life span in excess of 75 years. (as the diameter increases, the proportion of savings also increases dramatically).

The difference between In-Place CML and Factory CML by way of quality

In place CML is superior to factory CML because it is made typically with a one to one ratio of silica sand to Portland cement which provides a very durable lining with compressive strengths in excess of 7,500psi while factory linings are typically a three to one ratio. Further, in-place linings are under optimum curing conditions since water is typically introduced into the main about one day after the lining is applied. Further still, the in-place lining is applied centrifugally as opposed to the factory lining in which the pipe is spun so the factory process allows segregation of the cement mortar materials. As a result, the original mixing proportion (cement/sand ratio 1:2) changes, based on the concentration of CaO, the mixing proportion ranges from 3:1 (water side) to 1:3.7 (pipe wall side). The in situ lining develops no separation of grain sizes. The cross section produces a constant mixture of 1:1 as applied.

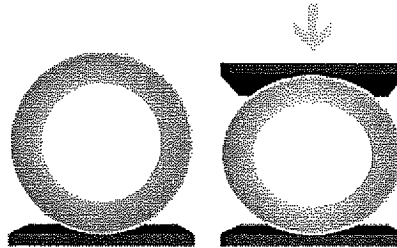
According to studies performed in Dortmund of Germany from 1972 to 1980, factory lined pipe tended to form a brittle layer on the surface of the factory lining after only three years of service. On the other hand, in-place cement mortar linings were found all to be in good condition even after 18 years of operation.

Structural performance of Cement Mortar Lining

CML itself is structural to a point. This was demonstrated in the Detroit Test which proved that a layer of less than ¼ inch CML is not as weak as thought. For a fully structural replacement that can withstand load forces and internal pressures Reinforced CML can be used on water mains 30" diameter and larger.

In 1950s, the ability of a cement-mortar lining to remain in place during deflection of the pipe was demonstrated in a deflection test conducted on a 72" (1,828.80 mm) diameter welded steel pipe section with a 5/16" (7.94 mm) wall thickness. A 1/4" (6.35 mm) cement-mortar lining was centrifugally applied and allowed to cure properly. During the following 16-month period, the lining was thoroughly dried out and the pipe was subjected to shock and vibration tests to demonstrate the integrity of the lining. At the end of this period, various loads were placed on top of the section until eventually a load section of 13" (330.20 mm) on the vertical axis was reached. Although hairline cracks appeared during the deflection, no impairment to the lining was observed either during the test or afterward when the load was removed.

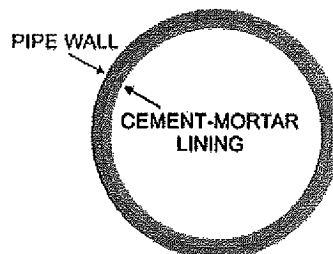
#### DURABILITY OF CEMENT-MORTAR LINING



Deflection Test of Cement Mortar Lining

A cement-mortar lining offers high compressive strength, creating an "arch action" which holds the lining in tight contact with the pipe wall. This is a major advantage over linings which rely on bond or adhesive strength to hold them in place. Cement mortar linings, while having substantial adhesion or bond, do not depend on bond to remain in place. A cement lining of proper thickness acts as a compression ring within a tension ring. It is a continuous arch which, being confined by the pipe, has no place to go. Deflection in a pipe merely increases the perimeter of the cement lining with respect to the pipe wall perimeter and thereby pushes the lining tighter against the wall of the pipe and resists the forces causing the deflection.

#### DIAGRAM OF ARCH ACTION INHERENT IN CEMENT-MORTAR LININGS



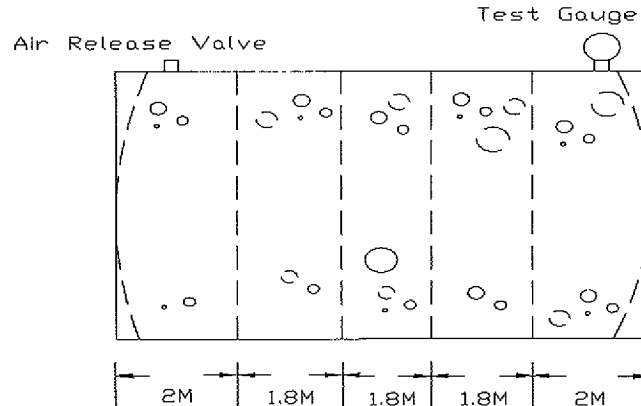
CEMENT LININGS:  
A CONTINUOUS RING,  
CONTAINED BY THE PIPE WALL

#### Ability of Cement Mortar Lining to prevent pipeline leakage

In Akron, Ohio, troubles had been experienced for some years from electrolytic action on the exterior of the city's 22 miles of parallel 36in and 48 in steel force mains. Leaks apparently resulting from corrosion started by electrolysis, continues to develop in both conduits. Investigation revealed that these leaks were caused by holes about  $\frac{1}{4}$ " in diameter, originating on the outside surface of the pipe. Resorting to tests which would simulate these actual conditions and using a comparable cement mortar lining  $\frac{1}{4}$  in thick, the engineers established to their satisfaction that holes not only of  $\frac{1}{4}$  in size, but up to and including 1  $\frac{1}{4}$  in could be spanned safely by this unsupported cement mortar lining and the leakage stopped even under water pressures of 200psi. though some "weeping"

was observable after passing 40lb. pressure in the tests, it completely stopped after 72 hours under test conditions.

Proof that Cement Mortar Lining prevents pipe leakage



Tests show that cement mortar lining prevents pipeline leakage and  
Is capable of bridging a hole over 6in diameter to withhold 305psi

In 1940 the city of Detroit, Michigan, conducted a pressure test on a length of 48" diameter x ½" wall riveted steel pipe. The section to be tested was perforated with numerous holes from 1" to 6 ¼ in diameter. Cement mortar lining was then applied to the inside of the pipe, the thickness of the lining graduating from ¼" at one end of the pipe to 1" at the other. After an adequate curing period, a prescribed hydraulic testing procedure was followed to determine the pressures at which failure might occur in the cement mortar lining. The large hole, 6 ¼" in diameter, blew out at a pressure of 305psi, with a deflection before rupture of 0.05 inches. The thickness of the lining at this particular hole was 5/8". From this test it is concluded that cement mortar lining properly applied, provides positive protection against leakage under normal operating pressures.

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**From:** Stoken, Laura (GOV)  
**Sent:** Friday, January 29, 2016 3:51 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Seychelle Advanced Patented Portable Water Filtration Products  
**Attachments:** sey pump pure info pic sheet 16.docx; sey filters types 16.docx

For your determination

**From:** Val Parsel [<mailto:vparsel@gmail.com>]  
**Sent:** Friday, January 29, 2016 12:06 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Subject:** Seychelle Advanced Patented Portable Water Filtration Products

I am following up on yesterday's phone conversation with someone in this office (I don't have the name) regarding our superior portable water filtration products. We have been contacted by so many to get in touch with your office regarding one solution to the Flint, MI water problems. Seychelle Water Filtration has been in business for over twenty years, supplying; the military, missionaries, worldwide disasters, & much more with clean filtered water. **Seychelle designs, manufactures and supplies revolutionary water filtration systems featuring breakthrough technology, most notably, Ionic Adsorption Micro Filtration.** Seychelle's exclusive Ionic Adsorption Micro Filtration is capable of reduction in all four areas of contamination: **Aesthetic, Microbiological, Chemical, and Dissolved Solids.**

**One specific product that we manufacture that is imperative in a contaminated water disaster, is our portable water filtration pump (see attached info).** The Seychelle Supreme Pump with our most Advanced technology, is designed to work with any non-plumbed available water source. Built to reduce up to 99.9999% of cysts, bacteria and viruses from virtually any water source. The NEW Supreme Pump uses Seychelle's Exclusive Ionic-Adsorption Micro-Filtration Technology to eliminate or reduce up to 99.9999% of waterborne contamination such as:

- Aesthetics like sand, silt, odors
- Chemicals from industry, agriculture, and pharmacology
- Dissolved Solids, heavy metals
- Filters up to 100 gallons of water, equal to 650 plus half liter water bottles. Replacement filters available.

Our convenient Advanced pump can be used anywhere... from schools, businesses, homes, to most any water source, except salt water. We also have other easy to use Advanced water filtration products i.e. Advanced water filtration bottles, and more... Our products provide clean water, unlike plastic water bottles where the source of the water can be questionable, plus BPA from the plastic that can also leach into the water... as well as the sustainability factor of so much plastic polluting our environment.

I would be happy to answer any questions, work with you in anyway to empower your city with a solution to offer lead free water (as well as other contaminants) in a very easy to use economical way... Please visit our website [www.seychelle.com](http://www.seychelle.com) to view our products, as well as our pump & filter information that I am attaching to this email.

Thank you for your interest & let me know if you would like any samples to try...

Best regards,

Val Parsel  
Seychelle Water Filtration

Tel. 888-577-2257

Email: [vparsel@gmail.com](mailto:vparsel@gmail.com)

Website: [www.seychelle.com](http://www.seychelle.com)





Contact: Val Parsel – 888-577-2257

## **NEW patented, portable, Advanced Water Filtration Pump**

### **Product Description**

The Seychelle **SUPREME Water Pump 2 Pure Kit** water pump includes the Seychelle™ SUPREME dual-chambered filter which filters everything all of our other filters do combined... PLUS increases the alkalinity of drinking water up to 9.5pH. It can be used with tap water or outside water sources such as rainwater, rivers, streams or even freshwater lakes. Can also be used with turbid water (stagnant) during emergencies. Cannot be used with brackish water or salt-water which may clog the filter (brackish water has more salinity than fresh water, but not as much as seawater – normally river or estuaries that are near seawater).

Increases the pH alkalinity in water, filters dissolved solids and heavy metals from water filters chemicals from water filters, pathogens from water, filters bacteria from water, filters viruses in water, filters radiation from water.

### **KEY FEATURES**

Includes one replaceable filter.

Hand pump that can attach to kitchen faucet or any other water container.

Produces up to 100 gallons of filtered water or more depending upon the quality of the source water.

Can be used with tap water or outside water sources such as rainwater, rivers, streams or even freshwater lakes. Can also be used with turbid water (stagnant) during emergencies.

Increases alkalinity of drinking water up to 9.5ph

Removes up to 99.9999% of known bacteria and viruses, including Ebola and Enterovirus.

Removes up to 99.99% radiological contaminants that can be found in drinking water.

Removes up to 99.99% of contaminants and pollutants

Proven tested technology. View Seychelle Lab Test Results.

Quick disconnect fittings are installed to allow quick adaptation.

The pump can also be used as shown with the Inline Filters.

Pump 2 Pure Carrying Case included

Can also get Drinking Water from Your Water Heater

You can use the hose attachment from your kit to get water from your water heater or your water hose. Take the hose attachment and screw it directly onto the water heater water outlet. Then attach

the In-Line filter from the bottom using the quick connect and you have access to gallons of drinking water for your family.

## **ABOUT Seychelle FILTRATION**

The Pump 2 Pure uses Seychelles' Exclusive Ionic-Adsorption Micro-Filtration Technology to eliminate or reduce up to 99.9999% of waterborne contamination such as:

**Aesthetic** – Unpleasant taste, odors, cloudiness, silt, sediment, Chlorine

**Bacteria** – Harmful Virus, Bacteriological pathogens', Cryptosporidium, Giardia

**Chemicals** – Toxic chemicals, Arsenic, Trihalomethanes, PCBs, PCEs, detergents, and pesticides (DDT).

**Dissolved Solids** – Heavy Metals, Aluminum, Asbestos, Cadmium, Chromium 6, Copper, Lead, and Mercury.

**Viruses** – Ebola, Enterovirus, Poliovirus 1, MS-2 Coliphage, Rotavirus, MERS and many more.

**Reduces up to 90% of Fluoride.**

**Alkalinity of your drinking water is increased up to 9.5ph**

**Viruses, Bacteria and Contaminants**

**Removes up to 99.99% of toxic chemicals, contaminants, and pollutants found in fresh water supplies including, but not limited to:**

**Chemicals including Chlorine, Chloroforms, Radon 222, DDT, fluoride (up to 90%).**

**Dissolved Solids and Heavy Metals including dirt, Arsenic, Asbestos, Lead, Mercury, Copper, Zinc, Aluminum, trihalomethanes, PCB, PCE, Chromium 6, and other detergents and pesticides.**

**Parasites (Cysts) including Giardia and Cryptosporidium**

**The EPA approved iodinated resin (EPA Reg #: 35917-2), in this filter has been proven effective in the removal of all bacteria and viruses to six logs (99.9999%) including, but not limited to:**

### **Bacteria:**

**Klebsiella terrigena, Legionella, Coli form, Fecal coliform, Cholera, E-Coli, MTBE, Benzene, and many more.**

### **Viruses:**

**Ebola, Enterovirus, Poliovirus 1, MS-2 Coliphage, Rotavirus, MERS and many more.**

### **Radiological Filtration**

**NELAC tested and approved for up to 100% removal of the following radioisotopes:**

**Gross Beta Particles**



**Radioactive Iodine I-131**

**Radon 222**

**Plutonium**

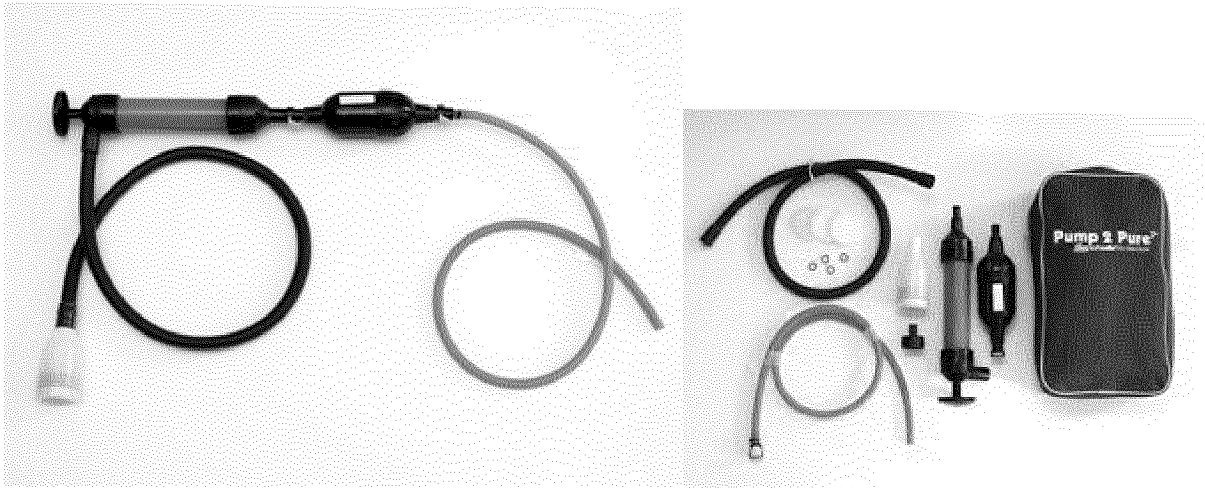
**Uranium**

**Cesium 137**

**Cesium 134**

**Radium 226 (Alpha)**

*Dedicated to improving the quality of life through the quality of our drinking water.*



"We are effectively and positively providing the solution to the public's concerns by taking water filtration to a whole new level of sophistication... via technological advancements and unsurpassed performance. The independent lab tests worldwide, prove beyond a doubt that we have a product line to be trusted." [www.seychelle.com](http://www.seychelle.com)

Seychelle is a prominent company in the fast-growing water filtration industry. We market a complete line of top-quality portable water filtration products and brands in North America and worldwide and have been for over 20 years.

For your health... Water is the single most important nutrient we consume. Our bodies are 75% water and the quality of your life is directly impacted through the quality of your drinking water. By removing harmful contaminants and pollutants, filtered water is better for you and your health.



Contact: Val Parsel – 888-577-2257

## Seychelle Water Filters

Seychelle's Ionic Adsorption Micron Filters are the most laboratory and field-tested of their kind in the world using EPA protocols and tested to NSF/ANSI Standards 42 and 53 by Broward Testing Laboratory. Beneficial trace minerals are not removed in the filtering process. What's good stays...what's bad goes.

### **TYPES OF Seychelle patented FILTERS that are in our various products...**

#### **Seychelle REGULAR Filter**

The Regular filter removes up to 99.99% of chlorine, chemicals (VOCs), heavy metals and Radon 222. Removes up to 90% of fluoride. Since it is more open in porosity, it does not remove giardia, cryptosporidium or E-Coli. It is designed to be used as a drinking water filter for use with chlorinated municipal water and as a bottled water replacement. (Not to be used with salt water)

#### **Seychelle STANDARD Filter**

The Standard filter is ideal for any in or out-door use; like traveling, hiking, biking, camping, fishing or for emergency purposes. It can be used with any type of water source; tap or rainwater, rivers, streams or even lakes (Excluding salt water). It is designed for use with water that is non-turbid, non-stagnant. It removes up to 99.99% of contaminants and pollutants found in fresh water supplies including Aesthetics such as chlorine, Sediment and dirt; Chemicals (VOC's) such as DDT, MTBE, Benzene, Chloroforms (THM's); Dissolved Solids (heavy metals) such as Arsenic, Lead, Mercury, Copper, Zinc, Aluminum, Chromium 6 and up to 99.9% of Biologicals (pathogens) such as Giardia and Cryptosporidium. Removes up to 90% of fluoride.

#### **Seychelle ADVANCED Filter**

The Advanced filter is made of the same media as the Standard filter with the addition of EPA approved iodinated resin (EPA Reg #: 35917-2), which has been proven effective in the removal of bacteria and virus to six logs (99.9999%). Removes up to 90% of fluoride. It can be used in extreme conditions; turbid and stagnant water; and is ideal for emergencies such as hurricanes, cyclones, etc. such as events that occurred in the US with Katrina and the hurricane in Haiti. (Not to be used with salt water)

#### **Seychelle RADIOLOGICAL Filter**

The Radiological filter removes the four basic zones of contamination: Aesthetic (Chlorine, taste and odor), Chemicals (from Industry and Agriculture), Dissolved Solids (heavy metals such as lead, mercury, Chromium 6) and up to 99.99% of Radiological Contaminants such as Gross Beta, Radon 222, Alpha Radium 226, Plutonium, Uranium, Cesium 134 and 137. Removes up to 90% of fluoride. (Not to be used with salt water)

#### **Seychelle EXTREME RAD/ADV Filter**

The Extreme filter removes up to 99.99% of Chlorine, Chemicals (VOC's), Heavy Metals and Radiological Contaminants. It removes up to 99.9999% of Bacteria and Virus and 99.9% of Giardia and

**Cryptosporidium for up to 100 gallons of safe drinking water. The Extreme filters are perfect when using water of an unknown quality, or emergency preparedness, when survival is threatened by earthquakes, hurricanes, tornadoes, floods, fires, radiological contamination or terrorism. Removes up to 90% Fluoride. (Not to be used with salt water)**

#### **Seychelle ALKALINE (pH Enhanced) Filter - pH2O Pure Water Filter**

**The pH Enhanced filter removes up to 99.99% of chlorine, chemicals (VOCs), heavy metals, and Radon 222. It removes up to 90% of fluoride. The new filter, incorporating proprietary medias, increase the alkalinity (pH) of drinking water sources up to 9.5pH... (Your results may vary.) Since it is more open in porosity, it does not remove giardia, cryptosporidium, virus or bacteria. It is designed to be used as a drinking water filter for use with chlorinated municipal water, as a bottled water replacement, and for those who value the benefits of high-quality, alkaline filtered water. (Not to be used with salt water)**

#### **Seychelle SUPREME Filter**

**The Supreme filter is made of the same media as the Extreme Rad/Advance filter with the addition of our proprietary pH medias used in our pH2O Pure Water filter, which increase the alkalinity of drinking water sources up to 9.5pH. The Supreme filter removes up to 99.99% of Chlorine, Chemicals (VOC's), Heavy Metals and Radiological Contaminants. It removes up to 99.9999% of Bacteria and Virus and 99.9% of Giardia and Cryptosporidium for up to 100 gallons of safe drinking water. It removes up to 90% of fluoride and increase the pH balance of drinking water up to 9.5. (Not to be used with salt water)**

*Dedicated to improving the quality of life through the quality of our drinking water.*



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## **ABOUT Seychelle FILTRATION**

The Pump 2 Pure uses Seychelles' Exclusive Ionic-Adsorption Micro-Filtration Technology to eliminate or reduce up to 99.9999% of waterborne contamination such as:

**Aesthetic** – Unpleasant taste, odors, cloudiness, silt, sediment, Chlorine

**Bacteria** – Harmful Virus, Bacteriological pathogens', Cryptosporidium, Giardia

**Chemicals** – Toxic chemicals, Arsenic, Trihalomethanes, PCBs, PCEs, detergents, and pesticides (DDT).

**Dissolved Solids** – Heavy Metals, Aluminum, Asbestos, Cadmium, Chromium 6, Copper, Lead, and Mercury.

**Viruses** – Ebola, Enterovirus, Poliovirus 1, MS-2 Coliphage, Rotavirus, MERS and many more.

**Reduces up to 90% of Fluoride.**

**Alkalinity of your drinking water is increased up to 9.5ph**

**Viruses, Bacteria and Contaminants**

**Removes up to 99.99% of toxic chemicals, contaminants, and pollutants found in fresh water supplies including, but not limited to:**

**Chemicals including Chlorine, Chloroforms, Radon 222, DDT, fluoride (up to 90%).**

**Dissolved Solids and Heavy Metals including dirt, Arsenic, Asbestos, Lead, Mercury, Copper, Zinc, Aluminum, trihalomethanes, PCB, PCE, Chromium 6, and other detergents and pesticides.**

**Parasites (Cysts) including Giardia and Cryptosporidium**

**The EPA approved iodinated resin (EPA Reg #: 35917-2), in this filter has been proven effective in the removal of all bacteria and viruses to six logs (99.9999%) including, but not limited to:**

### **Bacteria:**

**Klebsiella terrigena, Legionella, Coli form, Fecal coliform, Cholera, E-Coli, MTBE, Benzene, and many more.**

### **Viruses:**

**Ebola, Enterovirus, Poliovirus 1, MS-2 Coliphage, Rotavirus, MERS and many more.**

### **Radiological Filtration**

**NELAC tested and approved for up to 100% removal of the following radioisotopes:**

**Gross Beta Particles**

**Radioactive Iodine I-131**

**Radon 222**

**Plutonium**

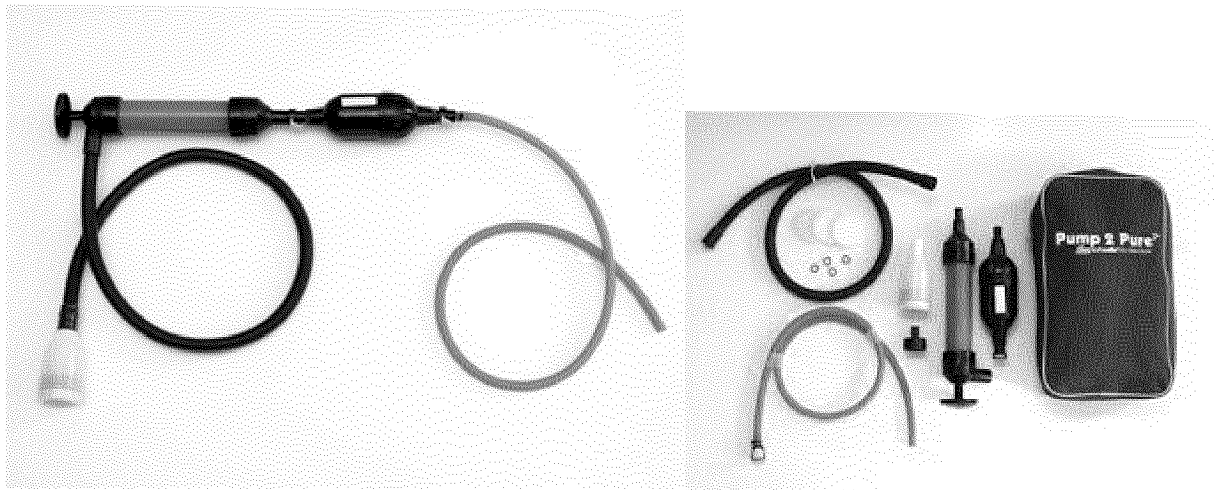
**Uranium**

**Cesium 137**

**Cesium 134**

**Radium 226 (Alpha)**

*Dedicated to improving the quality of life through the quality of our drinking water.*



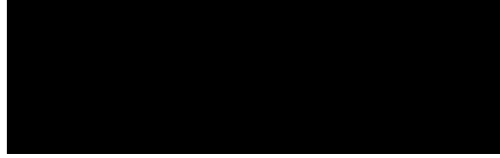
"We are effectively and positively providing the solution to the public's concerns by taking water filtration to a whole new level of sophistication... via technological advancements and unsurpassed performance. The independent lab tests worldwide, prove beyond a doubt that we have a product line to be trusted." [www.seychelle.com](http://www.seychelle.com)

Seychelle is a prominent company in the fast-growing water filtration industry. We market a complete line of top-quality portable water filtration products and brands in North America and worldwide and have been for over 20 years.

For your health... Water is the single most important nutrient we consume. Our bodies are 75% water and the quality of your life is directly impacted through the quality of your drinking water. By removing harmful contaminants and pollutants, filtered water is better for you and your health.



**CONSTANCE M. BORIS, Ph.D.**



**EDUCATION**

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Managed the environmental investigation of a \$150 million industrial re-development project in Chesterfield Township, Michigan which included soil and groundwater investigations, surface water, and sediment sampling for a 70-acre, three-cell lagoon, remedial design and implementation of a lagoon dewatering closure plan, which culminated in clean closure.

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Prepared bid documents for stormwater pollution prevention and permit during demolition of a large GM plant in Tarrytown, New Jersey.

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**1985-1988**

**U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C.**

**OFFICE OF WASTE PROGRAMS ENFORCEMENT**

As assistant to the Director of EPA's Office of Waste Programs Enforcement, served to manage public policy and analysis in the environmental protection of the nation's soil, water and air resources, especially for Superfund sites and other hazardous waste sites.

**Special Assistant to the Director**

Resolved National Priority List (NPL or Superfund) site issues, coordinated regulatory programs between Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), which regulates hazardous wastes from cradle to grave; developed incentives for voluntary private party cleanups of Superfund sites through covenants-not-to-sue, cost recovery, mixed funding settlements, non-binding allocations of responsibility, de minimus buyouts, and other incentives in lieu of Section 106 enforcement orders, and prepared Congressional testimony.

**OFFICE OF WATER**

**Environmental Protection Specialist**

Drafted regulations to implement amendments to the Clean Water Act; one of three individuals that developed the draft federal language to authorize the State Revolving Loan Funds to finance the construction of municipal wastewater treatment plants; and resolved National Pollutant Discharge Elimination System (NPDES) permit issues.

**1980-1985**

**UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN**

**Assistant Professor**

Taught undergraduate and graduate courses in Mathematical Modeling of Natural Resource Systems, Natural Resource Policy, and Risk Analysis; conducted research on incentives for voluntary cleanup of Superfund sites and liability issues.

**1975-1980**

**RESOURCES FOR THE FUTURE (natural resources think-tank)**

As a Fellow at Resources for the Future, managed public policy research and analysis in the development of energy resources for the nation, including the U.S. Department of Interior and the U.S. Department of Energy; managed staff and reviewed reports and publications.

**Fellow, Research Associate**

Served as a consultant to the U.S. Department of the Interior and the U.S. Department of Energy on the economic and engineering feasibility of coal synthetic fuels development (coal gasification and coal liquefaction) in the Powder River Basin of Montana and Wyoming.

Developed a mathematical hydrological simulation model of the Yellowstone River Basin including hydrology (water supply) and legal water rights (water demand) including Native American water rights, irrigation water rights, in-stream uses for fish and wildlife, to assess if water was a constraint on western synthetic fuel development (coal gasification and liquefaction), which resulted in a peer-reviewed book titled Water Rights and Energy Development.

Served as an advisor to the U.S. Department of Energy on research conducted at the Pacific Northwest Laboratory and the Oak Ridge Laboratory.

## **CERTIFICATIONS/TRAINING/AWARDS**

40-Hour HAZWOPER Training and current Annual (2015) 8-Hour Refresher Training

Certified Lead Inspector and Lead Risk Assessor (2001 – 2005).

MDEQ - Certified Storage Tank Professional (#633).

Certified Hazardous Materials Manager, Master Level (1992 – 2004).

Received an Award for Community Service for investigation of PCBs in sediments in St. Clair Shores from the Michigan Association of Environmental Professionals.

Received an Award from the Monroe Historical Society for my environmental work on three parcels incorporated into the River Raisin National Battlefield Park.

Received an Award for Outstanding Service to the Society of American Military Engineers for serving as Chair, 2009 Great Lakes and Ohio Valley Regional Conference in cooperation with the U.S. Army Corps of Engineers.

Received an Award from the Wayne County Farm Bureau for Community Service.

Appointed to the Michigan Environmental Science Board by Governor Granholm.

Semi-Finalist, White House Fellowship, and Meeting with President George Bush.

## **APPOINTMENTS/BOARD MEMBERSHIPS**

Board Member, Michigan Environmental Science Board (2006-2008).

Board Member, Wayne County Farm Bureau (2012 – 2015)

Board Member, Haiti and Africa Relief Team, Inc. (2010 – 2014)

Elected Member of the Board of Directors, Wayne County Conservation District (2001 – 2005).

President, Society of American Military Engineers (S.A.M.E.), Detroit Post, 2008-2009.

Chair, 2009 S.A.M.E. Great Lakes and Ohio Valley Regional Conference held at the Detroit Marriott in Detroit, MI in cooperation with the U.S. Army Corps of Engineers.

Chair, Detroit River Remedial Action Plan Public Advisory Council.

Vice-Chair and Member of the Board of Directors, Detroit River Remedial Action Plan Partnership, Inc.

Special Assistant to the Chairman of the Governor's Special Commission on Energy.

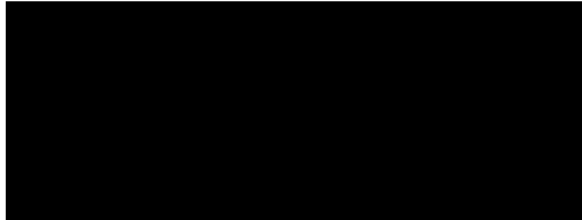
Message

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**From:** Stoken, Laura (GOV) [/O=MIGOV/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=JESSL]  
**Sent:** 1/29/2016 9:05:22 PM  
**To:** Sachs, Tori (GOV) [/O=MIGOV/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Rexfordv]  
**CC:** Saunders, Kelli (GOV) [/O=MIGOV/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Saundersk1]  
**Subject:** FW: Technical Assistance on Flint Water Issue  
**Attachments:** Connie Boris Resume.doc

For you

**From:** Connie Boris [mailto:cboris4@gmail.com]  
**Sent:** Friday, January 29, 2016 3:37 PM  
**To:** Calley, Brian (GOV) <Brian.Calley@michigan.gov>  
**Subject:** Technical Assistance on Flint Water Issue



TO: Lt. Governor Brian Calley

FROM: Connie Boris, Ph.D.

RE: Technical Assistance on Flint Water Issue

DATE: January 29, 2016

It has been on my mind for a few weeks now to offer my technical environmental engineering expertise to assist the Snyder Administration to work on the water quality problem in Flint. I'm familiar with Flint as my dear godfather and my Aunt Mary lived on Lomita Street adjacent to the GM engine plant. I even have memories of the water running from their home faucet back then.

By way of education, I have a Ph.D. in Civil Engineering: Water Resources Engineering from the University of Michigan in Ann Arbor.

My work experience over the past 25 years includes working at the Office of Water at the U.S. Environmental Protection Agency Headquarters in Washington D.C. and in the Office of Waste Programs Enforcement (i.e., Superfund Site work), Assistant Professor at the University of Michigan in Ann Arbor, and environmental consulting including contaminant investigation and remediation for major industrial clients (e.g., General Motors' automotive plants in Flint and sediment sampling in the Flint River). More recently, I've been working with the U.S. National Park Service on environmental issues related to expanding the River Raisin National Battlefield Park. I also served on the State of Michigan Environmental Science Board.

If Governor Snyder's administration is interested in my assistance on the Flint water issue, I've attached a resume and always feel free to call me at [REDACTED]

Sincerely,

Connie Boris



**CONSTANCE M. BORIS, Ph.D.**



**EDUCATION**

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**U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C.**

**OFFICE OF WASTE PROGRAMS ENFORCEMENT**

As assistant to the Director of EPA's Office of Waste Programs Enforcement, served to manage public policy and analysis in the environmental protection of the nation's soil, water and air resources, especially for Superfund sites and other hazardous waste sites.

**Special Assistant to the Director**

Resolved National Priority List (NPL or Superfund) site issues, coordinated regulatory programs between Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), which regulates hazardous wastes from cradle to grave; developed incentives for voluntary private party cleanups of Superfund sites through covenants-not-to-sue, cost recovery, mixed funding settlements, non-binding allocations of responsibility, de minimus buyouts, and other incentives in lieu of Section 106 enforcement orders, and prepared Congressional testimony.

**OFFICE OF WATER**

**Environmental Protection Specialist**

Drafted regulations to implement amendments to the Clean Water Act; one of three individuals that developed the draft federal language to authorize the State Revolving Loan Funds to finance the construction of municipal wastewater treatment plants; and resolved National Pollutant Discharge Elimination System (NPDES) permit issues.

**1980-1985**

**UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN**

**Assistant Professor**

Taught undergraduate and graduate courses in Mathematical Modeling of Natural Resource Systems, Natural Resource Policy, and Risk Analysis; conducted research on incentives for voluntary cleanup of Superfund sites and liability issues.

**1975-1980**

**RESOURCES FOR THE FUTURE (natural resources think-tank)**

As a Fellow at Resources for the Future, managed public policy research and analysis in the development of energy resources for the nation, including the U.S. Department of Interior and the U.S. Department of Energy; managed staff and reviewed reports and publications.

**Fellow, Research Associate**

Served as a consultant to the U.S. Department of the Interior and the U.S. Department of Energy on the economic and engineering feasibility of coal synthetic fuels development (coal gasification and coal liquefaction) in the Powder River Basin of Montana and Wyoming.

Developed a mathematical hydrological simulation model of the Yellowstone River Basin including hydrology (water supply) and legal water rights (water demand) including Native American water rights, irrigation water rights, in-stream uses for fish and wildlife, to assess if water was a constraint on western synthetic fuel development (coal gasification and liquefaction), which resulted in a peer-reviewed book titled Water Rights and Energy Development.

Served as an advisor to the U.S. Department of Energy on research conducted at the Pacific Northwest Laboratory and the Oak Ridge Laboratory.

## **CERTIFICATIONS/TRAINING/AWARDS**

40-Hour HAZWOPER Training and current Annual (2015) 8-Hour Refresher Training

Certified Lead Inspector and Lead Risk Assessor (2001 – 2005).

MDEQ - Certified Storage Tank Professional (#633).

Certified Hazardous Materials Manager, Master Level (1992 – 2004).

Received an Award for Community Service for investigation of PCBs in sediments in St. Clair Shores from the Michigan Association of Environmental Professionals.

Received an Award from the Monroe Historical Society for my environmental work on three parcels incorporated into the River Raisin National Battlefield Park.

Received an Award for Outstanding Service to the Society of American Military Engineers for serving as Chair, 2009 Great Lakes and Ohio Valley Regional Conference in cooperation with the U.S. Army Corps of Engineers.

Received an Award from the Wayne County Farm Bureau for Community Service.

Appointed to the Michigan Environmental Science Board by Governor Granholm.

Semi-Finalist, White House Fellowship, and Meeting with President George Bush.

## **APPOINTMENTS/BOARD MEMBERSHIPS**

Board Member, Michigan Environmental Science Board (2006-2008).

Board Member, Wayne County Farm Bureau (2012 – 2015)

Board Member, Haiti and Africa Relief Team, Inc. (2010 – 2014)

Elected Member of the Board of Directors, Wayne County Conservation District (2001 – 2005).

President, Society of American Military Engineers (S.A.M.E.), Detroit Post, 2008-2009.

Chair, 2009 S.A.M.E. Great Lakes and Ohio Valley Regional Conference held at the Detroit Marriott in Detroit, MI in cooperation with the U.S. Army Corps of Engineers.

Chair, Detroit River Remedial Action Plan Public Advisory Council.

Vice-Chair and Member of the Board of Directors, Detroit River Remedial Action Plan Partnership, Inc.

Special Assistant to the Chairman of the Governor's Special Commission on Energy.

---

**From:** Stoken, Laura (GOV)  
**Sent:** Friday, January 29, 2016 4:19 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company- S313594

Charles Bondy  
760-473-4249  
[chas007y@yahoo.com](mailto:chas007y@yahoo.com)

Sir, I am from California and I would suggest that you get your best engineer (and I mean your BEST ENGINEER) to look at [www.phoenixenergynv.com](http://www.phoenixenergynv.com) They have a new process for renewable energy using induction and magnetic fields. These people can help solve your Flint water problem. Then off the site, contact either Brian Smith or Mike Dooley. They are the engineer founders of this new process.

You put out a call for a solution, here it is.

Charles Bondy

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 18, 2016 9:27 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: 3/4  
**Attachments:** FW5 (2).zip; ATT00001.htm

Sent from my iPhone

Begin forwarded message:

**From:** "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
**To:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** FW: 3/4

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Sachs, Tori (GOV)  
Sent: Tuesday, February 09, 2016 7:39 PM  
To: Lord, Daniel (DNR); Weise, Kevin (MSP)  
Subject: 3/4

Sorry for the multiple emails. Just want you to have all of these.

Tori Sachs  
External Affairs Advisor  
Office of Gov. Rick Snyder  
C: 517-775-3688



---

**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 6:34 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Company S313625

Jack Lee  
PO Box 426 Sweetwater, TX 79556  
[kjl7359@gmail.com](mailto:kjl7359@gmail.com)  
325.235.8491

I-20 Envoro-tech has a water solution system for the issue of lead in Flint's water..We have a mobil e-c unit capable of cleaning 1.2 million gallons of water a day.Based on requirements the unit will clean water to drinking stage. We would be glad to run a test. We are based in Texas and have extensive recycling and hydro engineering experience.

Laura Stoken  
Manager, Constituent Relations  
Executive Office of the Governor, Rick Snyder  
517.335.7858

---

**From:** Stoken, Laura (GOV)  
**Sent:** Thursday, January 28, 2016 2:54 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company - Flint Water Crisis

**Importance:** High

For your determination

---

**From:** Reno [<mailto:savetax@accesscomm.ca>]  
**Sent:** Thursday, January 28, 2016 1:21 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>; Hunter, Janet (DHHS) <[HunterJ8@michigan.gov](mailto:HunterJ8@michigan.gov)>  
**Subject:** Request For Assistance - Flint Water Crisis  
**Importance:** High

Gentlemen,

Greetings from north of the boarder. My name is Reno Giambattista. I reside in Regina, Saskatchewan, Canada. I hope this email reaches you as I was unable to go through the contact portal on your main website as it does not allow Canadian based content and after contacting your office by phone I was given some more direction on who to reach out to.

First and foremost, I hope you are making more and more positive strides in your pursuit of a 'fix' for the current water crisis in Flint. I and many fellow Canadians have been following it very closely.

The intent of this email is in the hope that my great friend's company, Pure Water Box, may be able to help assist you in your efforts. In a nutshell, Pure Water Box resides in Markham, ONT. and has the ability to provide an ERT (Emergency Response Trailer) that can be operational within hours of arrival at a disaster/crisis zone. It is probably one of the most innovative and reliable systems I have ever had the chance to set on eyes on.

I know you are very busy with tons of groups reaching out to you and that you have limited resources, but I strongly feel that the conversation with the President of the company, Ryan Mitchell, is well worth the time and energy in order to see what can be accomplished.

For more information please go to [www.purewaterbox.ca](http://www.purewaterbox.ca).

Ryan Mitchell's direct contact info is Cell: (416) 662-6923 Email: [ryan@purewaterbox.ca](mailto:ryan@purewaterbox.ca)

Thank you in advance for your time and all the best in your endeavours to fix what needs to be fixed.

Sincerely,

Reno

---

**From:** Rich Baird <rbaird003@hotmail.com>  
**Sent:** Thursday, January 28, 2016 2:59 PM  
**To:** Dennis Cawthorne; Baird, Richard (GOV)  
**Cc:** Sachs, Tori (GOV)  
**Subject:** Re: Message from Dennis Cawthorne

These are coming out of the woodwork. I have just assigned a person to inventory and track these requests to the folks accountable for making decisions on procurement in the departments. Thank you.

Rich

Sent from [Outlook Mobile](#)

On Thu, Jan 28, 2016 at 8:46 AM -0800, "Dennis Cawthorne" <[DCawthorne@kelley-cawthorne.com](mailto:DCawthorne@kelley-cawthorne.com)> wrote:

Rich:

I'm sure you are being inundated with matters involving the Flint crisis. However, I thought the following may possibly be of interest and value to you:

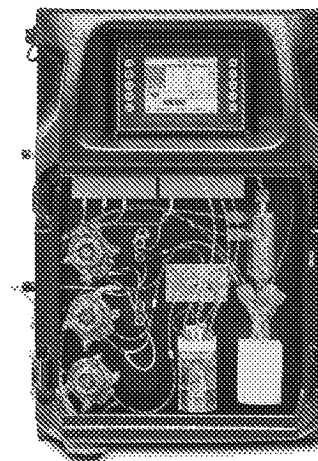
Vogel-Brown, a firm located in northern Virginia, contacted me through a mutual friend, stating that in 2015 they became the USA distributors of Japanese patented water cleansing technology that is capable of cleaning/removing large amounts of iron, lead, and bacteria, including Cryptosporidium, from municipal water systems. They inform me that the Japanese have been using this technology for 20+ years and have 19 million households using individual units. Their focus is an HVAC application which removes all metals, minerals, and microbials from HVAC systems water, without using any chemicals, and by application of electrolysis.

They have an interest in being of assistance in the current crisis. They have asked if it would be possible to get "the latest Lab Report from the Flint water facility which should identify all the microbials, chemicals, metals, and minerals, and their concentrations" so the company can intensify its efforts to see if their technology may be applicable and of value to the State of Michigan.

Dennis Cawthorne



Single and multi-parameter  
determination of trace metals in  
water by on-line voltammetry



### Advanced features

- Flexibility in analytical mainframe: single or double ASV cell
- Pre-treatment options for complexed forms or higher organic content
- Easy operation and simple maintenance
- Complete separation between electronics and wet part
- Multiplexing up to eight (8) sampling points possible
- Incorporated industrial PC with AppliTek controller software
- Extended data communication and exchange features

### Application fields

Determination of trace metals/heavy metals in clean waters:

- Surface water
- Drinking water
- Mineral water
- Waste water effluent

### High analytical performance

- Low sample and reagent consumption
- Excellent correlation with standard laboratory methods
- Smart features: automatic calibration and automatic cleaning
- Factory configured, tested and calibrated

## Technical specifications

### Analytical data

#### Analysis method

Anodic Stripping Voltammetry (ASV)

#### Parameters

Antimony (Sb), arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), iron (Fe), lead (Pb), manganese (Mn), mercury (Hg), molybdenum (Mo), nickel (Ni), platinum (Pt), selenium (Se), silver (Ag), tin (Sn), zinc (Zn)

Examples of combinations:

Cd + Cu + Pb + Zn, additionally Ni

As(III) + As(total) + Hg

As (total) + Hg + Sn

#### Cycle time

ASV analysis: 15 minutes

Optional oxidation: 20 minutes

*Note: oxidation time can be set to 60 minutes for difficult samples*

#### Calibration

Factory calibrated

#### Cleaning

Automatic, free adjustable sequence

#### Detection limit

ppb levels, depending on parameter

#### Precision / Repeatability

Better than 5% full scale for standard solutions

### Environmental data

#### Ambient operating conditions

10 °C – 30 °C +/- 4 °C deviation at 5 - 95% relative humidity non-condensing  
(50 °F – 86 °F +/- 7.2 °F deviation)

#### Reagent temperature

Keep between 10 °C - 30 °C (50 °F - 86 °F)

#### Sample pressure

By external overflow vessel

#### Sample flow rate

Fast loop sample supply required - minimal flow rate depends on application

#### Sample particulates

Maximum size 40 µm, < 0.1 g/l

### Utilities

#### Power

220 - 240 VAC, 2 A, 50 Hz

Max. power consumption: 120 VA

Other voltages available on request

#### Instrument air (purging)

Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air

#### Tap water

- Cleaning and/or dilution
- Cooling of the condenser

#### Drain

Atmospheric pressure, vented, min. Ø 64 mm

#### Earth connection

Dry and clean earth pole with low impedance (< 1 ohm) using an earth cable of > 2.5 mm²

### Reagents

#### Reagents

*Please check respective datasheets.*

#### Reagent containers (included)

To be placed outside cabinet

Containers come with torqueless screw caps.

#### Cleaning solution (recommended)

Tap water or specific chemical solution

### Mechanical data

#### Protection class

Analyzer cabinet: IP55

Touch screen/Industrial PC: IP65

#### Cabinet and materials, hinged part

Thermoform ABS

Door: plexiglass

#### Cabinet and materials, wall section

Galvanized steel, powder coated

#### Wetted materials

PE / PTFE / PP / PFA

#### Dimensions (H X W X D)

69 cm (27.2") x 46.5 cm (18.3") x 33 cm (13")

#### Total weight

25 kg (55 lbs.)

### Control and communication

#### User interface / controller

Industrial PC with 5.7" TFT colour user interface, compact flash memory

Backlit touchscreen, brightness adjustable

#### Data handling, logging and security

- Standard Ethernet 10 M (RJ45) NE 2000
- Communication ports supporting Ethernet connectivity to MODBUS TCP/IP
- Log files with 1,000 values/results are stored
- Easy export to spreadsheet files
- Sealed USB port for data or result graph download and program upload
- User interface with administrator access and menu keys activated/inactivated
- Data retention in case of power failure, initialization program for safe status after restart

#### Analogue outputs

Maximum 8, active 4 – 20 mA

Max. 500 Ohm load

#### Alarms (digital outputs)

- Malfunctioning alarm (potential free contact)
- Result alarm (potential free contact)

#### MODBUS TCP/IP, MODBUS-RS232 -RS485

Optional

### Options / add-on units

#### Sample digestion unit (built-in)

Sample pretreatment unit with hot acid digestion and reflux condenser

#### Sample preconditioning

**MicroSize®** self-cleaning microfiltration unit, various pore sizes available

#### Reagent level detection

Installed on reagent containers; alarms are generated by controller software

#### Multiple streams

**ModuPlex®** 2 or 3 streams (8 on demand)

### Certification

#### CE approval

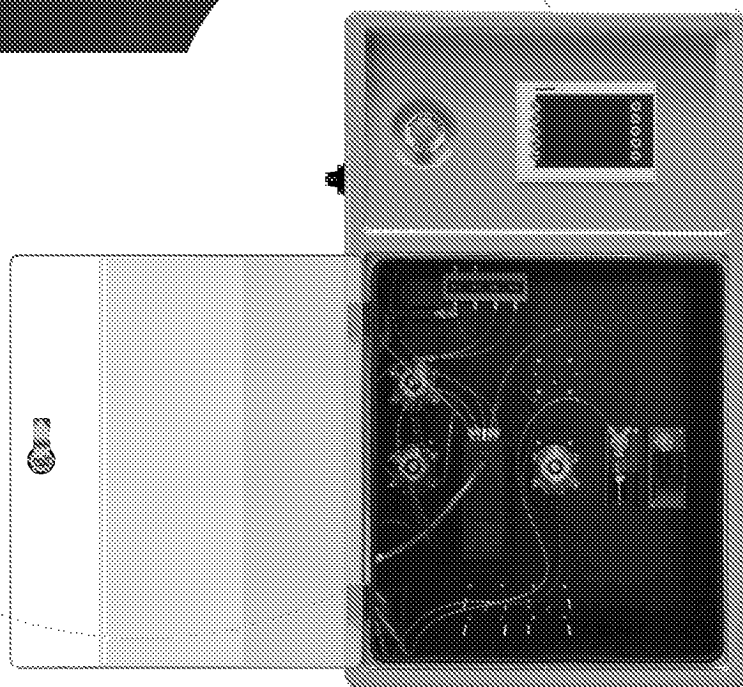
Certified to CE approval

#### Factory Acceptance Test (FAT)

At AppliTek NV, Belgium.

# coliLyzer

On-line Monitoring of *E. coli* and Total Coliforms  
in Drinking Water and Surface Water



**coliLyzer®** Automatic, on-line monitoring of  
target pathogen levels in water sources

- On-line monitoring of fecal coliforms and coliform groups in various water sources
- Convenient, automatic operation requiring no special analytical chemistry or microbiology skills
- Selection of rapid qualitative methods and quantitative methods
- Flexible analysis cycles of 24 h up to 1 every 3h
- Industry-standard enzyme indicators of coliforms
- Incorporated industrial panel PC with AppliTek controller software

Masters in Analytical Technology.

**AppliTek**

# On-line Monitoring of *E. coli* and Total Coliforms in Drinking Water and Surface Water

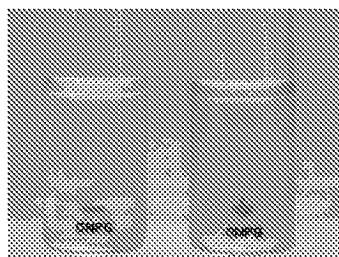
## Pathogen load of water

Waterborne illnesses as a result of *Escherichia coli* infections have become an emerging subject in the field of water quality management and public health. *E. coli* is a member of a group of organisms known as coliforms: common bacteria found in the digestive system of humans and animals. Permissible levels have been set for water sources by authorities and agencies worldwide, specifically for drinking water. Hence the importance of reliable, fast monitoring systems for qualification and quantification of coliforms cannot be underestimated.

## Principle of analysis

The analysis method of the **coliLyzer®** is based on two chemicals, ONPG (*ortho*-nitrophenyl- $\beta$ -D-galactopyranoside) and MUG (4-methyl-umbelliferyl- $\beta$ -D-glucuronide). These are used in the medium as substrates for two distinct reactions that are specific for total coliforms and *E. coli*. All coliform bacteria produce an enzyme  **$\beta$ -galactosidase** that reacts with ONPG to give the medium a yellow color. When growth of coliform bacteria occurs, the increasing concentration of the enzyme hydrolyzes more and more ONPG resulting in a pronounced color change of the water sample to yellow. *E. coli*, however, synthesizes a specific enzyme  **$\beta$ -glucuronidase** metabolizing MUG to methylumbelliferone and produce fluorescence which can be detected with UV light (365 nm).

Inside the **coliLyzer®**, the change in color as well as the degree of fluorescence is continuously measured by two spectrophotometers until a signal is detected.



## Technology basics

Contrary to automated laboratory systems, the **coliLyzer®** is a fully automatic on-line analyzer that can be used as an early warning system for detection and measurement of coliform organisms in water. The simultaneous use of two different substrates, ONPG and MUG, is a major breakthrough in the detection and quantification of coliforms since it allows to differentiate between total coliforms and *E. coli* specifically.

Water samples are taken from a fast loop of or any pipe close by the analyzer, injected in a sterile medium liquid containing the two substrates stored inside the analyzer. The bacteria that are presumably present in the sample are allowed to incubate. The change in color as well as the degree of fluorescence is continuously measured until either a reliable signal or a (programmable) threshold value is detected. This depends on the initial concentration of those bacteria and how long the incubation time will be:

Low initial concentration = long incubation and long detection time.

High initial concentration = short incubation and short detection time.

Sampling, analysis and reporting are automatic, which allows fast feedback on the microbial load in the water body. The **coliLyzer®** offers convenient and simplified operation requiring only basic skills in microbiology or analytical chemistry. Operators can focus on action plans if necessary and protect their water source from immediate threat of waterborne pathogens.

### Analytical specifications

Parameters	Heat resistant (fecal) coliforms / / <i>E. coli</i> / Total coliforms
Sampling volume	100 mL
Sampling frequency	3 - 24 hours
Analysis cycle	Less than 24 hours
Measurement range	Depending on target pathogen concentration
Detection limit	1 / 100 mL - 10 x 10 <sup>11</sup> / 100 mL
Incubation temperature	36.5 °C (coliform bacteria) or 44.5 °C (fecal coliform)
Reagents	1 bottle of culture solution / sample



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**From:** Calley, Brian (GOV)  
**Sent:** Thursday, January 28, 2016 3:12 PM  
**To:** Sachs, Tori (GOV)  
**Cc:** Saunders, Kelli (GOV)  
**Subject:** FW: CNN coverage Flint water crisis  
**Attachments:** ColiLyzer-EN.PDF; AppliTrace-EN\_Leaflet.pdf; TitriLyzer-EN.PDF

**Importance:** High

Forwarding through you as it appears this individual is working with the city

---

**From:** Bhupen Patel [mailto:bpatel@pimcgroup.com]  
**Sent:** Thursday, January 28, 2016 10:57 AM  
**To:** Benzie, Richard (DEQ) <BENZIER@michigan.gov>; Graham, Lois (DEQ) <GRAHAML@michigan.gov>  
**Cc:** Calley, Brian (GOV) <Brian.Calley@michigan.gov>  
**Subject:** FW: CNN coverage Flint water crisis  
**Importance:** High

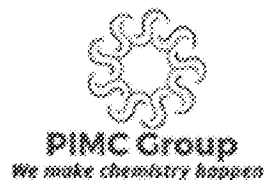
My recommendation is to conduct corrosivity tests through out the distribution system for City of Flint.

I have worked at American Water as a water quality supervisor and work with lake Michigan water as source water at Gary, and Ogdon dunes. At present, I am independent water treatment process professional.

Please let me know if I can be of any help. Thank you.

All the Best!

**Bhupen Patel** M.Sc. MS, MBA |Process Sales – North America | Process Analytics



**AppliTek**



2388 Providence Dr | Greenwood | IN | 46143  
Mobile +1 317 625 4216 | Customer Service +1 317 530 5573  
E-mail: [b.patel@applitek.com](mailto:b.patel@applitek.com) | [bpatel@pimcgroup.com](mailto:bpatel@pimcgroup.com)  
[www.applitek.com](http://www.applitek.com) | [www.pimcgroup.com](http://www.pimcgroup.com)

Come join us at

**WITtec April 11-13, 2016 Wyndham Indianapolis West**

---

**From:** Bhupen Patel [<mailto:bpatel@pimcgroup.com>]

**Sent:** Thursday, January 21, 2016 12:10 PM

**To:** 'bwright@cityofflint.com' <[bwright@cityofflint.com](mailto:bwright@cityofflint.com)>; 'Bhupen Patel' <[b.patel@applitek.com](mailto:b.patel@applitek.com)>

**Cc:** 'David Laurier' <[D.Laurier@applitek.com](mailto:D.Laurier@applitek.com)>; 'Chris Welsh' <[c.welsh@applitek.com](mailto:c.welsh@applitek.com)>; 'mfucich@fctechusa.com' <[mfucich@fctechusa.com](mailto:mfucich@fctechusa.com)>

**Subject:** FW: CNN coverage Flint water crisis

**Importance:** High

Dear Mr. Wright,

Thank you for taking my call this morning. AppliTek offers cutting-edge technologies in real time water quality monitoring for source water, treatment processes, and finished water. I have attached leaflets of our ColiLyzer and AppliTrace. AppliTrace is our trace metal analyzer for most toxic metals including lead and copper. ColiLyzer can check the effective disinfection in the finish water as well settled water before disinfection. Both of these analyzers can be deployed in the distribution system to monitor the drinking water quality to check any infiltration or leakage cross contamination.

Additionally, I would like to offer the TitrLyzer for alkalinity and hardness online analysis. In my experience, when the source water has relatively low alkalinity, the finish water it self become more aggressively corrosive to lead and copper plumbing. IF we measure finish water alkalinity at the plant add soda ash based on the alkalinity readings and stabilize the water, the lead and copper situation can be some what brought under control. AppliTrace analyzers can also be deployed at the river water intakes to measure lead and copper in the source water.

As I stated, in my telephone call I will be at the AWWA Lansing meeting during the first week of February. We can schedule a meeting then, or We can do this next week. I understand the urgency and I would like to support in your efforts to make good water.

All the best!

Bhupen Patel M.Sc. MS, MBA | Process Sales – North America | Process Analytics

**AppliTek**

AppliTek USA

2388 Providence Dr | Greenwood | IN | 46143

Mobile +1 317 625 4216 | Customer Service +1 317 530 5573

E-mail: [b.patel@applitek.com](mailto:b.patel@applitek.com) | [www.applitek.com](http://www.applitek.com) | [bpatel@pimcgroup.com](mailto:bpatel@pimcgroup.com)

**WITtec April 11-13, 2016 Wyndham Indianapolis West**



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**From:** Bhupen Patel [<mailto:b.patel@applitek.com>]  
**Sent:** Thursday, January 21, 2016 10:49 AM  
**To:** Bhupen Patel <[bpatel@pimcgroup.com](mailto:bpatel@pimcgroup.com)>  
**Subject:** FW: CNN coverage Flint water crisis  
**Importance:** High

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**From:** David Laurier  
**Sent:** donderdag 21 januari 2016 5:41  
**To:** 'edwardsm@vt.edu'  
**Cc:** 'knocke@vt.edu'; 'Mark Fucich ([mfucich@fctechusa.com](mailto:mfucich@fctechusa.com))'; Bhupen Patel; Chris Du Bois; Chris Welsh  
**Subject:** CNN coverage Flint water crisis  
**Importance:** High

Dear Prof. Dr. Edwards,  
Dear Ms. Dong  
Dear Ms. Dai

I'm currently on an Asian tour to visit our recently installed river monitoring stations.

Your interview on CNN today about the Flint drinking water issues, caught my attention.  
I'm currently in Thailand visiting some stations.

Just wanted to inform you that we are world-leader in installing early warning monitoring systems, with hundreds of references in China (mainly trace metals, toxicity and COD), Middle East, Latin America. Currently, we are bidding on the Ganga (India) river monitoring project.

(Your Chinese co-works can egally visit our Chinese website [www.applitek-china.com](http://www.applitek-china.com) and follow us on wechat channel. My personal wechat is luodawei8888)

We have on-line analyzers that detect a PPT/PPB/PPM levels Pb & Cu, and virtually all trace metals of importance, we also manufacture on-line

ATP analyzers, on-line e-coli/fecal coliform/total coliform/total bacteriae analyzers, and a broadband toxicity analyzer AppliTOX II using (discontinuous) *Vibrio fischeri*.

We have 2 branches in USA, Indianapolis and baton rouge, LA.

If you or your researchers are interested in meeting with us, let us know. We are at your disposal being part of your holistic approach to water Quality monitoring.

All the best and good luck at Flint.

David Laurier  
CEO



**David Laurier, MBA**  
President & CEO - Vice Chairman of the Board

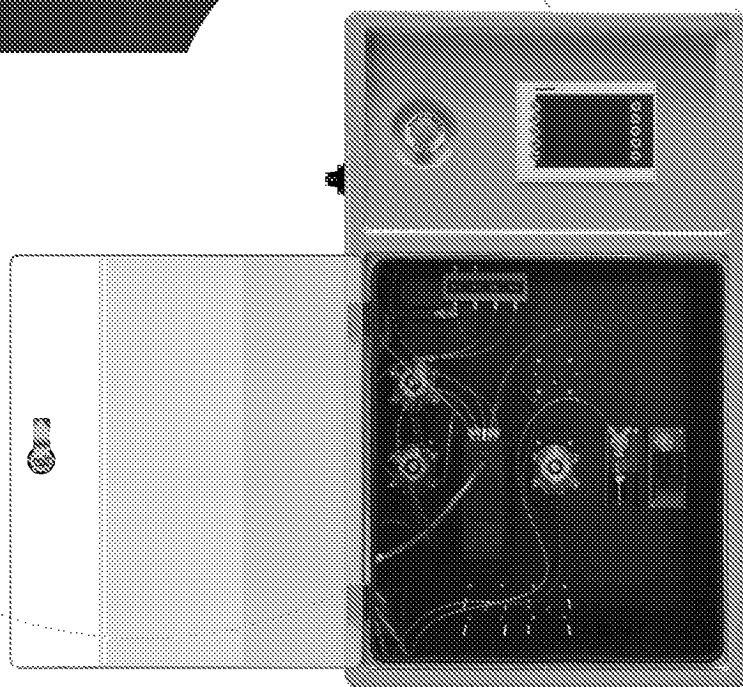
Tel +32 9 386 34 02 | Fax +32 9 386 72 97 | [d.laurier@applitek.com](mailto:d.laurier@applitek.com) | Skype david-laurier  
USA Toll free Tel : +1 (866) 417 5887 | Personal US conference call room: +1 (605) 715 4920  
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Disclaimer: <http://www.applitek.be/disclaimer.htm>

☒ Please consider the environment and our planet before printing this e-mail.

# coliLyzer

On-line Monitoring of *E. coli* and Total Coliforms  
in Drinking Water and Surface Water



**coliLyzer®** Automatic, on-line monitoring of  
target pathogen levels in water sources

- On-line monitoring of fecal coliforms and coliform groups in various water sources
- Convenient, automatic operation requiring no special analytical chemistry or microbiology skills
- Selection of rapid qualitative methods and quantitative methods
- Flexible analysis cycles of 24 h up to 1 every 3h
- Industry-standard enzyme indicators of coliforms
- Incorporated industrial panel PC with AppliTek controller software

Masters in Analytical Technology.

**AppliTek**

# On-line Monitoring of *E. coli* and Total Coliforms in Drinking Water and Surface Water

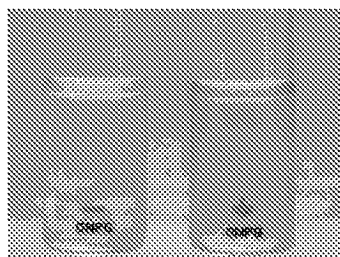
## Pathogen load of water

Waterborne illnesses as a result of *Escherichia coli* infections have become an emerging subject in the field of water quality management and public health. *E. coli* is a member of a group of organisms known as coliforms: common bacteria found in the digestive system of humans and animals. Permissible levels have been set for water sources by authorities and agencies worldwide, specifically for drinking water. Hence the importance of reliable, fast monitoring systems for qualification and quantification of coliforms cannot be underestimated.

## Principle of analysis

The analysis method of the **coliLyzer®** is based on two chemicals, ONPG (*ortho*-nitrophenyl- $\beta$ -D-galactopyranoside) and MUG (4-methyl-umbelliferyl- $\beta$ -D-glucuronide). These are used in the medium as substrates for two distinct reactions that are specific for total coliforms and *E. coli*. All coliform bacteria produce an enzyme  **$\beta$ -galactosidase** that reacts with ONPG to give the medium a yellow color. When growth of coliform bacteria occurs, the increasing concentration of the enzyme hydrolyzes more and more ONPG resulting in a pronounced color change of the water sample to yellow. *E. coli*, however, synthesizes a specific enzyme  **$\beta$ -glucuronidase** metabolizing MUG to methylumbelliferone and produce fluorescence which can be detected with UV light (365 nm).

Inside the **coliLyzer®**, the change in color as well as the degree of fluorescence is continuously measured by two spectrophotometers until a signal is detected.



## Technology basics

Contrary to automated laboratory systems, the **coliLyzer®** is a fully automatic on-line analyzer that can be used as an early warning system for detection and measurement of coliform organisms in water. The simultaneous use of two different substrates, ONPG and MUG, is a major breakthrough in the detection and quantification of coliforms since it allows to differentiate between total coliforms and *E. coli* specifically.

Water samples are taken from a fast loop of or any pipe close by the analyzer, injected in a sterile medium liquid containing the two substrates stored inside the analyzer. The bacteria that are presumably present in the sample are allowed to incubate. The change in color as well as the degree of fluorescence is continuously measured until either a reliable signal or a (programmable) threshold value is detected. This depends on the initial concentration of those bacteria and how long the incubation time will be:

Low initial concentration = long incubation and long detection time.

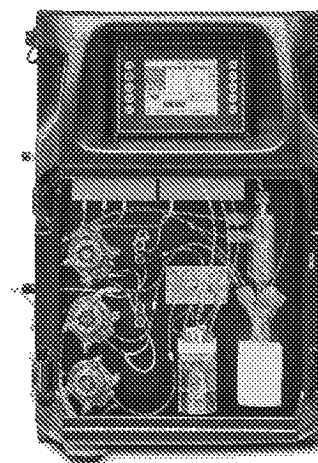
High initial concentration = short incubation and short detection time.

Sampling, analysis and reporting are automatic, which allows fast feedback on the microbial load in the water body. The **coliLyzer®** offers convenient and simplified operation requiring only basic skills in microbiology or analytical chemistry. Operators can focus on action plans if necessary and protect their water source from immediate threat of waterborne pathogens.

### Analytical specifications

Parameters	Heat resistant (fecal) coliforms / / <i>E. coli</i> / Total coliforms
Sampling volume	100 mL
Sampling frequency	3 - 24 hours
Analysis cycle	Less than 24 hours
Measurement range	Depending on target pathogen concentration
Detection limit	1 / 100 mL - 10 x 10 <sup>11</sup> / 100 mL
Incubation temperature	36.5 °C (coliform bacteria) or 44.5 °C (fecal coliform)
Reagents	1 bottle of culture solution / sample

Single and multi-parameter  
determination of trace metals in  
water by on-line voltammetry



### Advanced features

- Flexibility in analytical mainframe: single or double ASV cell
- Pre-treatment options for complexed forms or higher organic content
- Easy operation and simple maintenance
- Complete separation between electronics and wet part
- Multiplexing up to eight (8) sampling points possible
- Incorporated industrial PC with AppliTek controller software
- Extended data communication and exchange features

### Application fields

Determination of trace metals/heavy metals in clean waters:

- Surface water
- Drinking water
- Mineral water
- Waste water effluent

### High analytical performance

- Low sample and reagent consumption
- Excellent correlation with standard laboratory methods
- Smart features: automatic calibration and automatic cleaning
- Factory configured, tested and calibrated

## Technical specifications

### Analytical data

#### Analysis method

Anodic Stripping Voltammetry (ASV)

#### Parameters

Antimony (Sb), arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), iron (Fe), lead (Pb), manganese (Mn), mercury (Hg), molybdenum (Mo), nickel (Ni), platinum (Pt), selenium (Se), silver (Ag), tin (Sn), zinc (Zn)

Examples of combinations:

Cd + Cu + Pb + Zn, additionally Ni

As(III) + As(total) + Hg

As (total) + Hg + Sn

#### Cycle time

ASV analysis: 15 minutes

Optional oxidation: 20 minutes

*Note: oxidation time can be set to 60 minutes for difficult samples*

#### Calibration

Factory calibrated

#### Cleaning

Automatic, free adjustable sequence

#### Detection limit

ppb levels, depending on parameter

#### Precision / Repeatability

Better than 5% full scale for standard solutions

### Environmental data

#### Ambient operating conditions

10 °C – 30 °C +/- 4 °C deviation at 5 - 95% relative humidity non-condensing  
(50 °F – 86 °F +/- 7.2 °F deviation)

#### Reagent temperature

Keep between 10 °C - 30 °C (50 °F - 86 °F)

#### Sample pressure

By external overflow vessel

#### Sample flow rate

Fast loop sample supply required - minimal flow rate depends on application

#### Sample particulates

Maximum size 40 µm, < 0.1 g/l

### Utilities

#### Power

220 - 240 VAC, 2 A, 50 Hz

Max. power consumption: 120 VA

Other voltages available on request

#### Instrument air (purging)

Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air

#### Tap water

- Cleaning and/or dilution
- Cooling of the condenser

#### Drain

Atmospheric pressure, vented, min. Ø 64 mm

#### Earth connection

Dry and clean earth pole with low impedance (< 1 ohm) using an earth cable of > 2.5 mm²

### Reagents

#### Reagents

*Please check respective datasheets.*

#### Reagent containers (included)

To be placed outside cabinet

Containers come with torqueless screw caps.

#### Cleaning solution (recommended)

Tap water or specific chemical solution

### Mechanical data

#### Protection class

Analyzer cabinet: IP55

Touch screen/Industrial PC: IP65

#### Cabinet and materials, hinged part

Thermoform ABS

Door: plexiglass

#### Cabinet and materials, wall section

Galvanized steel, powder coated

#### Wetted materials

PE / PTFE / PP / PFA

#### Dimensions (H X W X D)

69 cm (27.2") x 46.5 cm (18.3") x 33 cm (13")

#### Total weight

25 kg (55 lbs.)

### Control and communication

#### User interface / controller

Industrial PC with 5.7" TFT colour user interface, compact flash memory

Backlit touchscreen, brightness adjustable

#### Data handling, logging and security

- Standard Ethernet 10 M (RJ45) NE 2000
- Communication ports supporting Ethernet connectivity to MODBUS TCP/IP
- Log files with 1,000 values/results are stored
- Easy export to spreadsheet files
- Sealed USB port for data or result graph download and program upload
- User interface with administrator access and menu keys activated/inactivated
- Data retention in case of power failure, initialization program for safe status after restart

#### Analogue outputs

Maximum 8, active 4 – 20 mA

Max. 500 Ohm load

#### Alarms (digital outputs)

- Malfunctioning alarm (potential free contact)
- Result alarm (potential free contact)

#### MODBUS TCP/IP, MODBUS-RS232 -RS485

Optional

### Options / add-on units

#### Sample digestion unit (built-in)

Sample pretreatment unit with hot acid digestion and reflux condenser

#### Sample preconditioning

**MicroSize®** self-cleaning microfiltration unit, various pore sizes available

#### Reagent level detection

Installed on reagent containers; alarms are generated by controller software

#### Multiple streams

**ModuPlex®** 2 or 3 streams (8 on demand)

### Certification

#### CE approval

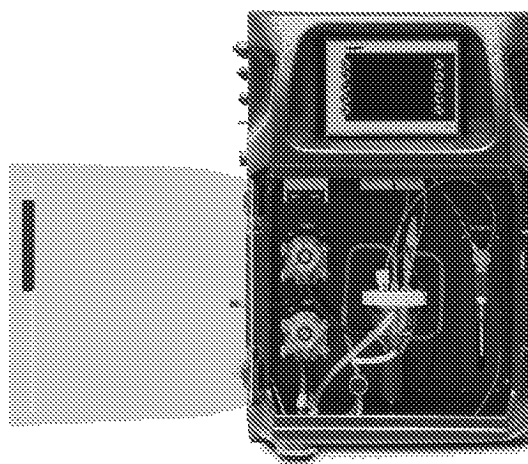
Certified to CE approval

#### Factory Acceptance Test (FAT)

At AppliTek NV, Belgium.



On-line, automatic titration  
of a wide array of chemical  
water parameters



### Flexibility in titration methodology

Potentiometric or (photo) colorimetric titration — the flexible analyzer mainframe of the **TitriLyzer®** Series of On-line Titrimetric Analyzers allows to carefully select the most suitable titration methodology in function of the application, parameter and measuring range.

### Advanced features

- Straight-forward design, single methodology, single parameter, factory set measuring range
- Complete separation between electronics and wet part
- Smart features and add-on units reduce down-time and unnecessary checks substantially
- Up to three (3) sampling points possible
- Incorporated industrial PC with AppliTek controller software

### Application fields

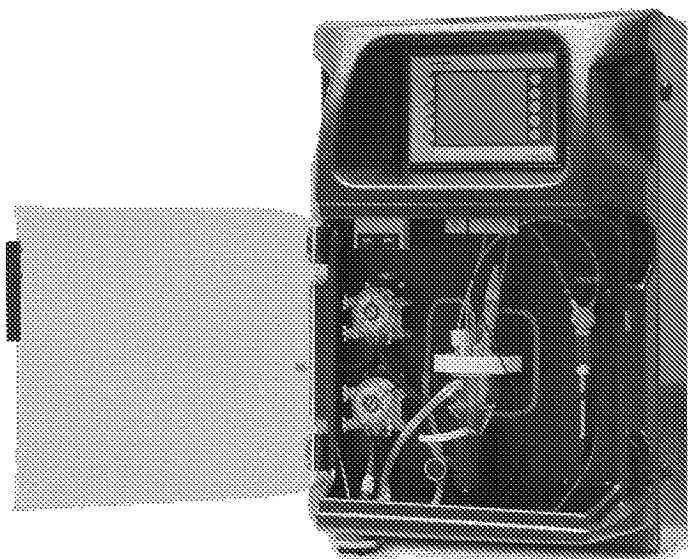
From mg/L up to g/L measuring ranges

On-line monitoring of chemical parameters and quality indices in clean and dirty water types:

- Boiler feed water / steam cycle monitoring
- Anaerobic digestion control
- Drinking water monitoring
- Waste water monitoring

### High analytical performance

- Reduced reagent consumption by batch-wise operation principle and high precision titration techniques
- Smart features: automatic validation and cleaning
- High sensitivity and selectivity
- Factory configured, tested and calibrated



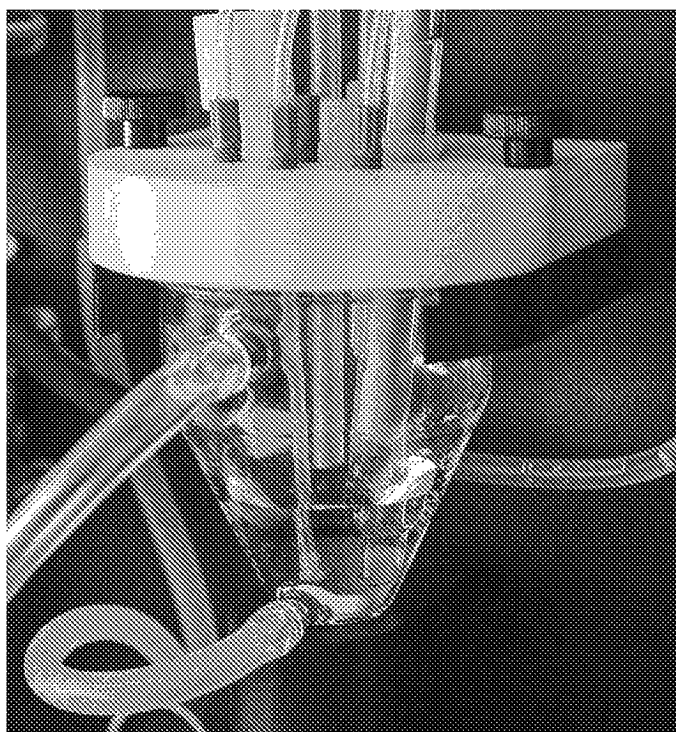
## Titrilyzer®

### Series of On-line Titrimetric Analyzers

#### Introduction

Titration involves determining the analyte(s) of interest by the addition of accurately known volumes of standardized titrant to a sample solution. The **Titrilyzer®** Series of On-line Titrimetric Analyzers are state of the art titration systems equipped with a high precision dispenser system and other quality components, available at an attractive price/quality ratio. The inherent batch-wise operating principle of the analyzer, coupled with AppliTek's controller software, provides users the following advantages:

- To program the analysis sequence according to your needs
- To introduce rinsing and cleaning after each analysis cycle
- To limit the loading of the electrodes
- To reduce reagent consumption



#### Titration methodology

AppliTek uses two distinct titrimetric techniques in function of the measuring range, the application and parameter.

Acid-base, redox or precipitation titration are typically used in the **potentiometric** configuration, where the endpoint is determined by use of a pair of electrodes or a combination electrode, i.e. the indicator and reference electrode. The electrodes for this kind of titration are chosen that a change in potential of the titration solution is optimally detected. In the **(photo)colorimetric** analyzer configuration, color change is used to determine the endpoint of the titration. The color change is accurately measured by AppliTek's own compact photometer, a design with high sensitivity and zero contact between sample and optical parts. Its narrow-band optical filter eliminates any interference from ambient light.

#### Smart functions

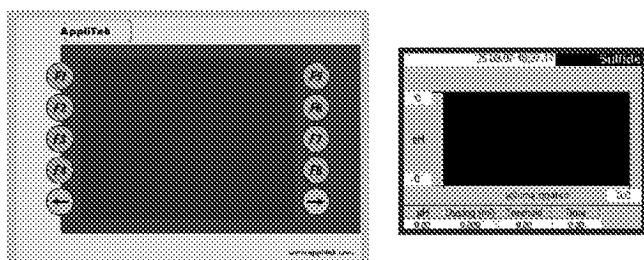
Designing a robust, automated analyzer mainframe is not merely restricted to excellent analytical specifications. It is common that repetitive and peripheral actions are necessary just to keep the analyzer running. AppliTek's controller software automates these actions and assures enhanced performance, reduced down-time and negligible operator intervention.

Automatic validation can be carried out with a standard solution with a known concentration in order to check the analysis program and analyzer functionality. An automatic cleaning cycle of the sample lines and vessel eliminates unnecessary cross interference in the analysis stage. The sequence and interval of validation and cleaning, as well as the analysis cycle are user programmable.

*Image: close-up of the analysis vessel inside the Titrilyzer®.*

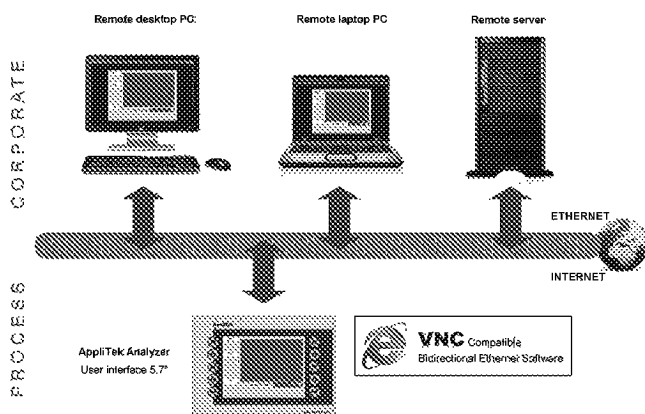
## Data exchange and supervision

All analysis procedures of the **TitriLyzer®** Series of On-line Titrimetric Analyzers are controlled by the incorporated industrial PC/controller. Gaining access and exchange information with your analyzer system is easy since the controller coordinates all tasks and job files within a LAN network.



Above: industrial controller with 5.7" user interface. Function button F6 allows to display the titration curve in real-time.

All actions and logs are controlled by the industrial PC, which generates large amounts of information. The incorporated software flexibility minimizes physical operator intervention. The analyzer screen (the client) can remotely be taken over by means of LAN Ethernet software (such as VNC software). Authorized users can carry out all manual operations and settings from a remote PC, such as trouble-shooting before doing any physical intervention and capturing cross-platform screenshots for reports.



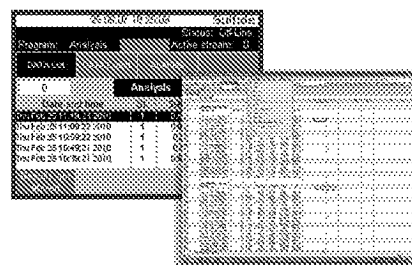
## Analysis of multiple streams

AppliTek's integrated multiplexing unit **ModuPlex®** consists of extra solenoid valves controlled by a special valve control software. This option enables you to monitor up to 3 streams sequentially, thus reducing the cost per sampling point. Results of each stream can be communicated through individual analogue outputs.

Image: example of TitriLyzer® in an IP65 cabinet for outdoor use.

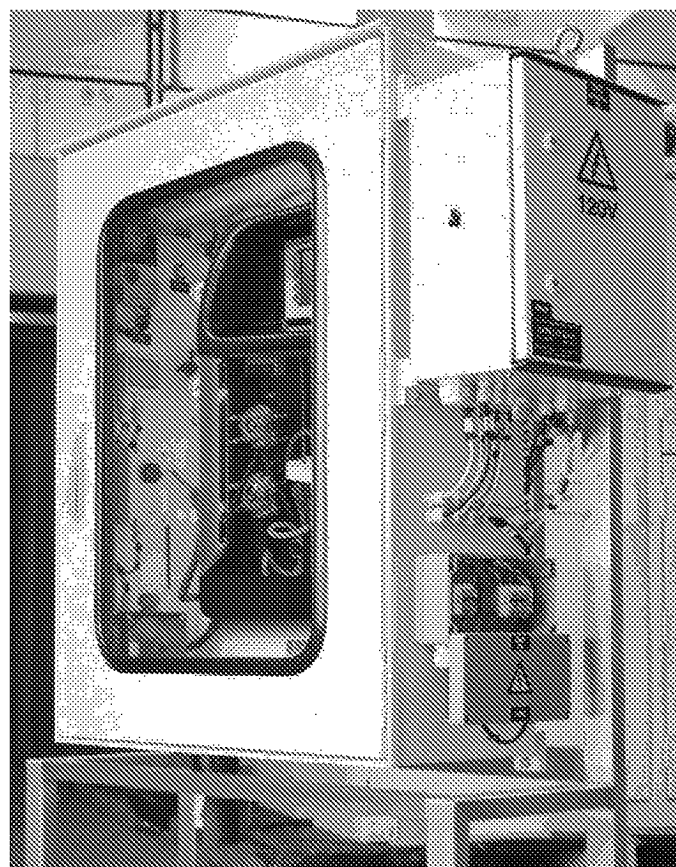
## Data logging

The incorporated industrial PC has a solid state data logger. A history of the records of the last 1,000 analysis results can be visualized in a chronological data table and equally be exported as Microsoft Excel files through the sealed USB port outside the analyzer cabinet.



## Hardware and analyzer enclosures

The **TitriLyzer®** Series are equipped with a new analyzer enclosure consisting of a solid steel back, combined with an ergonomic ABS hinged part containing the actual analytical part. Purging with instrument air is possible in case of extreme humidity or risk of accumulation of corrosive gases. The transparent door allows instant visual inspection of the wet-chemical part. The analyzer can also be integrated in an IP65 rated protective cabinet for outdoor use or use in any atmosphere where risk of ingress of dirt or moisture is considerable.



## Technical specifications

### Parameters

Please check the respective datasheet for more details on the analysis method.

Acetic acid	
Acidity	
Alkalinity	
Aluminium	▲
Ammonia	▲
Bicarbonate	
Calcium	▲
Chloride	
Chlorine	▲
Chlorine (free)	▲
Chromium III	▲
Chromium VI	▲
Copper	▲
Cyanide	▲
Fatty acids (volatile)	
Fluoride	
Formaldehyde	
Hardness (total)	▲
Hydrochloric acid	
Hydrogen fluoride	
Hydrogen peroxide	
Hydroxide	
Iron II	▲
Iron III	▲
Lime	
Magnesium	▲
Nitrite	
Oxalic acid	
Phosphoric acid	
Potassium hydroxide	
Sodium hydroxide	
Sodium hypochlorite	
Sulphate	
Sulphide	▲
Sulphite	
Sulphuric acid	
Total hardness	
Volatile fatty acids	

▲ Remark: analysis of this parameter is also available by colorimetry.

### Utilities

#### Power

220 - 240 VAC, 10 A, 50 Hz  
Max. power consumption: 150 VA  
Other voltages available on request

#### Instrument air

Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air

#### Demineralized water

For rinsing, calibration and/or dilution

#### Drain

Atmospheric pressure, vented, min. Ø 64 mm

#### Earth connection

Dry and clean earth pole with low impedance (< 1 ohm) using an earth cable of > 2.5 mm²

### Environmental data

#### Ambient operating conditions

10 °C – 30 °C +/- 4 °C deviation at 5 - 95% relative humidity non-condensing  
(50 °F – 86 °F +/- 7.2 °F deviation)

#### Reagent temperature

Keep between 10 °C - 30 °C (50 °F - 86 °F)

#### Sample pressure

Atmospheric up to 0.1 bar (1.45 psi)  
Note: higher sample pressures on request

#### Sample flow rate

10 - 30 ml per minute

#### Sample particulates

Maximum size 200 µm, < 0.1 g/l

### Mechanical data

#### Protection class

Analyzer cabinet: IP55  
Touch screen/Industrial PC: IP65

#### Cabinet and materials, hinged part

Thermoform ABS  
Bottom: leak detection  
Door: antistatic plexiglass

#### Cabinet and materials, wall section

Galvanized steel, powder coated

#### Dimensions

69 cm (27.2") x 46.5 cm (18.3") x 33 cm (13")  
(H X W X D)

#### Total weight

25 kg (55 lbs.)

### Control and communication

#### User interface / controller

Industrial PC with 5.7" TFT colour user interface, compact flash memory  
Backlit touchscreen, brightness adjustable

#### Data handling, logging and security

- Standard TCP/IP Ethernet
- Log files with 1000 values/result are stored
- Sealed USB port for data download/upload
- User interface with administrator access and menu keys activated/inactivated
- Data retention in case of power failure, initialization program for safe status after restart

#### Analogue outputs

Max. 6 AO, active 4 – 20 mA (max. 500 Ohm load)

#### Analogue inputs

Max. 4 AI

#### Alarms (digital outputs)

- Malfunctioning alarm (potential free contact)
- Result alarm (potential free contact)

#### Digital outputs (potential free)

Max. 24 DO

#### Digital inputs (potential free)

Max. 6 DI

#### RS232 / RS485 / MODBUS

Optional

### Options / add-on units

#### Settling / Dilution

EZ-Settler® automatic sampling/ settling/ dilution system for saturated or dirty matrices

#### Filtration

MicroSize® self-cleaning microfiltration unit, various pore sizes

#### Reagent level detection

Installed on reagent containers; alarms are generated by controller software

#### Multiple streams

ModuPlex® 2 or 3 streams (6 on demand)

#### Outdoor cabinet

IP65

### Certification

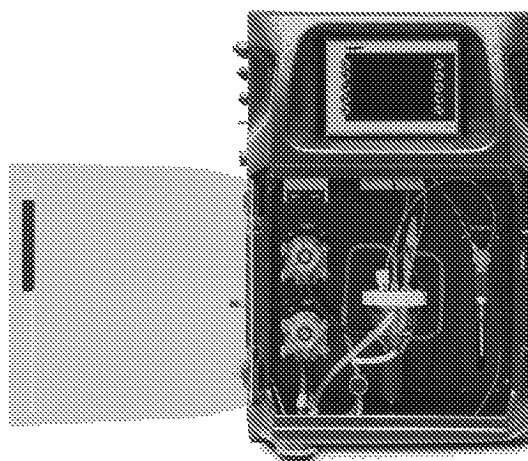
#### CE approval

Certified to CE approval

#### Factory Acceptance Test (FAT)

At AppliTek NV, Belgium.

On-line, automatic titration  
of a wide array of chemical  
water parameters



### Flexibility in titration methodology

Potentiometric or (photo) colorimetric titration — the flexible analyzer mainframe of the **TitriLyzer®** Series of On-line Titrimetric Analyzers allows to carefully select the most suitable titration methodology in function of the application, parameter and measuring range.

### Advanced features

- Straight-forward design, single methodology, single parameter, factory set measuring range
- Complete separation between electronics and wet part
- Smart features and add-on units reduce down-time and unnecessary checks substantially
- Up to three (3) sampling points possible
- Incorporated industrial PC with AppliTek controller software

### Application fields

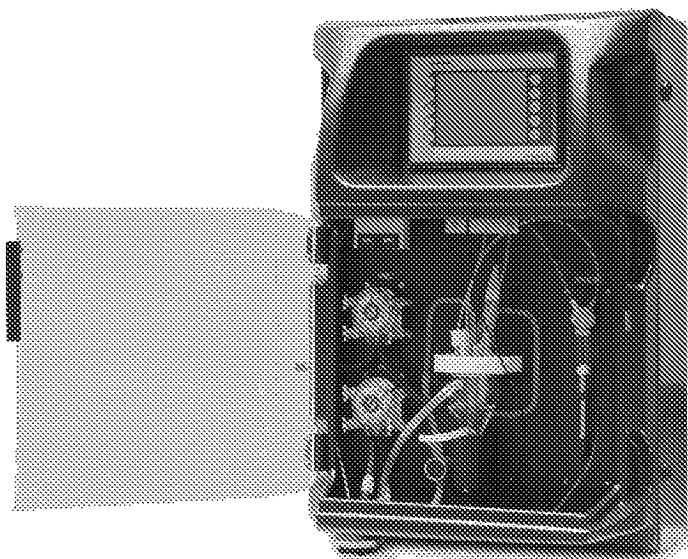
From mg/L up to g/L measuring ranges

On-line monitoring of chemical parameters and quality indices in clean and dirty water types:

- Boiler feed water / steam cycle monitoring
- Anaerobic digestion control
- Drinking water monitoring
- Waste water monitoring

### High analytical performance

- Reduced reagent consumption by batch-wise operation principle and high precision titration techniques
- Smart features: automatic validation and cleaning
- High sensitivity and selectivity
- Factory configured, tested and calibrated

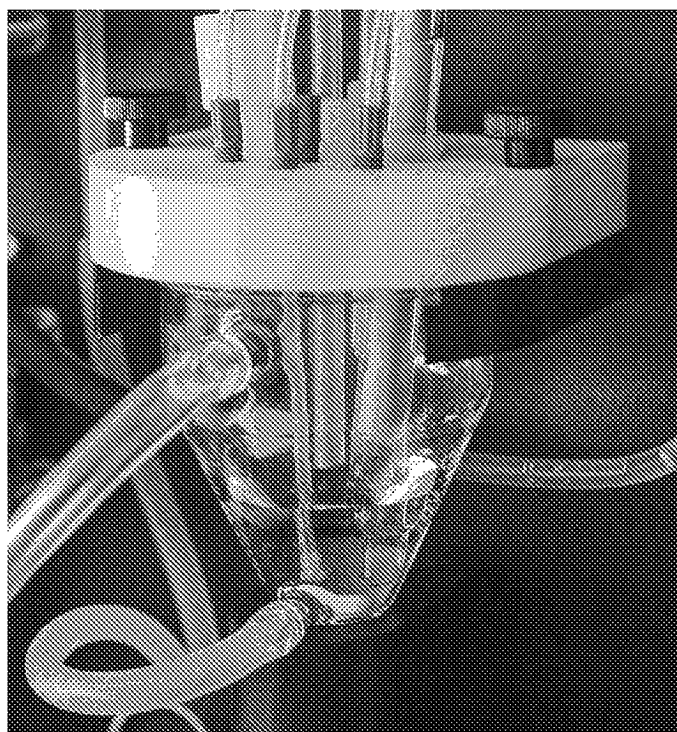


## TitrLyzer® Series of On-line Titrimetric Analyzers

### Introduction

Titration involves determining the analyte(s) of interest by the addition of accurately known volumes of standardized titrant to a sample solution. The **TitrLyzer®** Series of On-line Titrimetric Analyzers are state of the art titration systems equipped with a high precision dispenser system and other quality components, available at an attractive price/quality ratio. The inherent batch-wise operating principle of the analyzer, coupled with AppliTek's controller software, provides users the following advantages:

- To program the analysis sequence according to your needs
- To introduce rinsing and cleaning after each analysis cycle
- To limit the loading of the electrodes
- To reduce reagent consumption



### Titration methodology

AppliTek uses two distinct titrimetric techniques in function of the measuring range, the application and parameter.

Acid-base, redox or precipitation titration are typically used in the **potentiometric** configuration, where the endpoint is determined by use of a pair of electrodes or a combination electrode, i.e. the indicator and reference electrode. The electrodes for this kind of titration are chosen that a change in potential of the titration solution is optimally detected. In the **(photo)colorimetric** analyzer configuration, color change is used to determine the endpoint of the titration. The color change is accurately measured by AppliTek's own compact photometer, a design with high sensitivity and zero contact between sample and optical parts. Its narrow-band optical filter eliminates any interference from ambient light.

### Smart functions

Designing a robust, automated analyzer mainframe is not merely restricted to excellent analytical specifications. It is common that repetitive and peripheral actions are necessary just to keep the analyzer running. AppliTek's controller software automates these actions and assures enhanced performance, reduced down-time and negligible operator intervention.

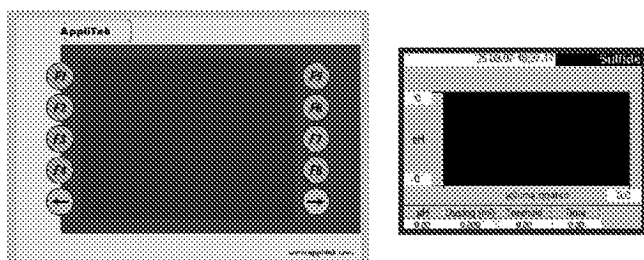
Automatic validation can be carried out with a standard solution with a known concentration in order to check the analysis program and analyzer functionality. An automatic cleaning cycle of the sample lines and vessel eliminates unnecessary cross interference in the analysis stage. The sequence and interval of validation and cleaning, as well as the analysis cycle are user programmable.

*Image: close-up of the analysis vessel inside the TitrLyzer®.*



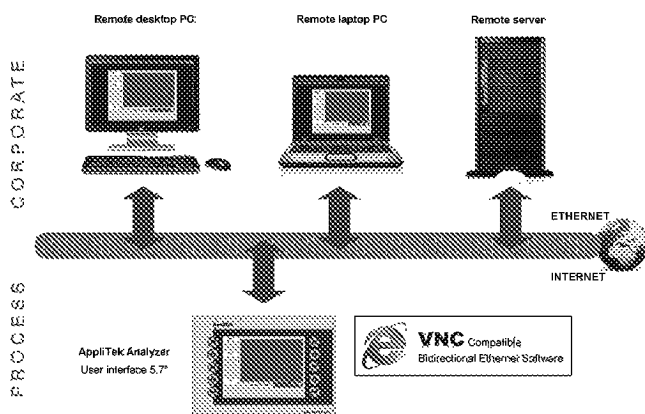
## Data exchange and supervision

All analysis procedures of the **TitriLyzer®** Series of On-line Titrimetric Analyzers are controlled by the incorporated industrial PC/controller. Gaining access and exchange information with your analyzer system is easy since the controller coordinates all tasks and job files within a LAN network.



Above: industrial controller with 5.7" user interface. Function button F6 allows to display the titration curve in real-time.

All actions and logs are controlled by the industrial PC, which generates large amounts of information. The incorporated software flexibility minimizes physical operator intervention. The analyzer screen (the client) can remotely be taken over by means of LAN Ethernet software (such as VNC software). Authorized users can carry out all manual operations and settings from a remote PC, such as trouble-shooting before doing any physical intervention and capturing cross-platform screenshots for reports.



## Analysis of multiple streams

AppliTek's integrated multiplexing unit **ModuPlex®** consists of extra solenoid valves controlled by a special valve control software. This option enables you to monitor up to 3 streams sequentially, thus reducing the cost per sampling point. Results of each stream can be communicated through individual analogue outputs.

Image: example of TitriLyzer® in an IP65 cabinet for outdoor use.

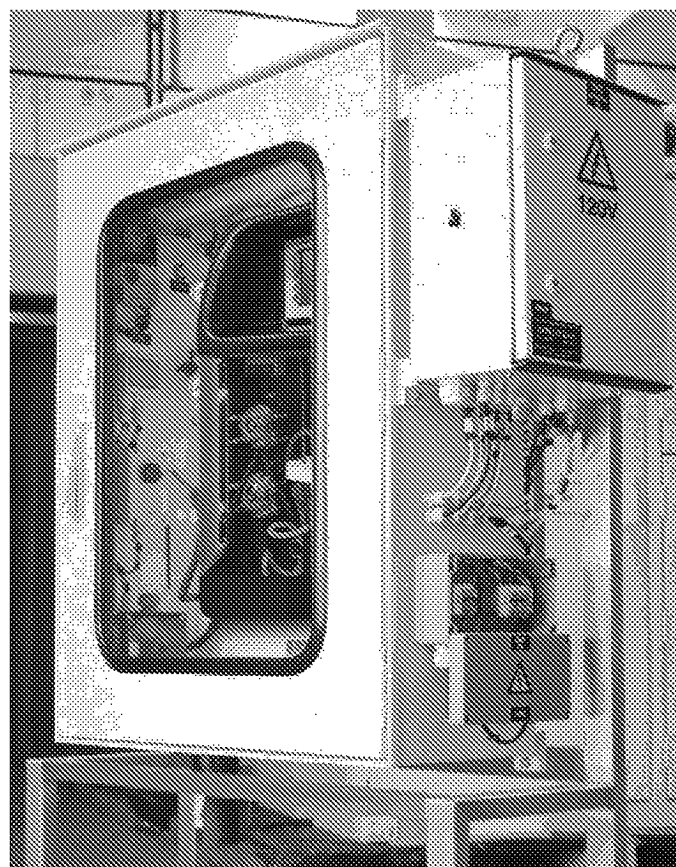
## Data logging

The incorporated industrial PC has a solid state data logger. A history of the records of the last 1,000 analysis results can be visualized in a chronological data table and equally be exported as Microsoft Excel files through the sealed USB port outside the analyzer cabinet.

Analysis	1	2	3	4	5	6	7	8	9	10
2010-01-21 10:00:00	1	1	1	1	1	1	1	1	1	1
2010-01-21 10:01:00	1	1	1	1	1	1	1	1	1	1
2010-01-21 10:02:00	1	1	1	1	1	1	1	1	1	1
2010-01-21 10:03:00	1	1	1	1	1	1	1	1	1	1
2010-01-21 10:04:00	1	1	1	1	1	1	1	1	1	1
2010-01-21 10:05:00	1	1	1	1	1	1	1	1	1	1
2010-01-21 10:06:00	1	1	1	1	1	1	1	1	1	1
2010-01-21 10:07:00	1	1	1	1	1	1	1	1	1	1
2010-01-21 10:08:00	1	1	1	1	1	1	1	1	1	1
2010-01-21 10:09:00	1	1	1	1	1	1	1	1	1	1
2010-01-21 10:10:00	1	1	1	1	1	1	1	1	1	1

## Hardware and analyzer enclosures

The **TitriLyzer®** Series are equipped with a new analyzer enclosure consisting of a solid steel back, combined with an ergonomic ABS hinged part containing the actual analytical part. Purging with instrument air is possible in case of extreme humidity or risk of accumulation of corrosive gases. The transparent door allows instant visual inspection of the wet-chemical part. The analyzer can also be integrated in an IP65 rated protective cabinet for outdoor use or use in any atmosphere where risk of ingress of dirt or moisture is considerable.



## Technical specifications

### Parameters

Please check the respective datasheet for more details on the analysis method.

Acetic acid	
Acidity	
Alkalinity	
Aluminium	▲
Ammonia	▲
Bicarbonate	
Calcium	▲
Chloride	
Chlorine	▲
Chlorine (free)	▲
Chromium III	▲
Chromium VI	▲
Copper	▲
Cyanide	▲
Fatty acids (volatile)	
Fluoride	
Formaldehyde	
Hardness (total)	▲
Hydrochloric acid	
Hydrogen fluoride	
Hydrogen peroxide	
Hydroxide	
Iron II	▲
Iron III	▲
Lime	
Magnesium	▲
Nitrite	
Oxalic acid	
Phosphoric acid	
Potassium hydroxide	
Sodium hydroxide	
Sodium hypochlorite	
Sulphate	
Sulphide	▲
Sulphite	
Sulphuric acid	
Total hardness	
Volatile fatty acids	

▲ Remark: analysis of this parameter is also available by colorimetry.

### Utilities

#### Power

220 - 240 VAC, 10 A, 50 Hz  
Max. power consumption: 150 VA  
Other voltages available on request

#### Instrument air

Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air

#### Demineralized water

For rinsing, calibration and/or dilution

#### Drain

Atmospheric pressure, vented, min. Ø 64 mm

#### Earth connection

Dry and clean earth pole with low impedance (< 1 ohm) using an earth cable of > 2.5 mm²

### Environmental data

#### Ambient operating conditions

10 °C – 30 °C +/- 4 °C deviation at 5 - 95% relative humidity non-condensing  
(50 °F – 86 °F +/- 7.2 °F deviation)

#### Reagent temperature

Keep between 10 °C - 30 °C (50 °F - 86 °F)

#### Sample pressure

Atmospheric up to 0.1 bar (1.45 psi)  
Note: higher sample pressures on request

#### Sample flow rate

10 - 30 ml per minute

#### Sample particulates

Maximum size 200 µm, < 0.1 g/l

### Mechanical data

#### Protection class

Analyzer cabinet: IP55  
Touch screen/Industrial PC: IP65

#### Cabinet and materials, hinged part

Thermoform ABS  
Bottom: leak detection  
Door: antistatic plexiglass

#### Cabinet and materials, wall section

Galvanized steel, powder coated

#### Dimensions

69 cm (27.2") x 46.5 cm (18.3") x 33 cm (13")  
(H X W X D)

#### Total weight

25 kg (55 lbs.)

### Control and communication

#### User interface / controller

Industrial PC with 5.7" TFT colour user interface, compact flash memory  
Backlit touchscreen, brightness adjustable

#### Data handling, logging and security

- Standard TCP/IP Ethernet
- Log files with 1000 values/result are stored
- Sealed USB port for data download/upload
- User interface with administrator access and menu keys activated/inactivated
- Data retention in case of power failure, initialization program for safe status after restart

#### Analogue outputs

Max. 6 AO, active 4 – 20 mA (max. 500 Ohm load)

#### Analogue inputs

Max. 4 AI

#### Alarms (digital outputs)

- Malfunctioning alarm (potential free contact)
- Result alarm (potential free contact)

#### Digital outputs (potential free)

Max. 24 DO

#### Digital inputs (potential free)

Max. 6 DI

#### RS232 / RS485 / MODBUS

Optional

### Options / add-on units

#### Settling / Dilution

EZ-Settler® automatic sampling/ settling/ dilution system for saturated or dirty matrices

#### Filtration

MicroSize® self-cleaning microfiltration unit, various pore sizes

#### Reagent level detection

Installed on reagent containers; alarms are generated by controller software

#### Multiple streams

ModuPlex® 2 or 3 streams (6 on demand)

#### Outdoor cabinet

IP65

### Certification

#### CE approval

Certified to CE approval

#### Factory Acceptance Test (FAT)

At AppliTek NV, Belgium.



---

**From:** Stoken, Laura (GOV)  
**Sent:** Thursday, January 28, 2016 3:27 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company

For your determination

---

**From:** John Swon [<mailto:jswon@silverlng.com>]  
**Sent:** Thursday, January 28, 2016 3:13 PM  
**To:** Hall, Jean (GOV) <[hallj16@michigan.gov](mailto:hallj16@michigan.gov)>  
**Subject:** SilverLiningR for MI

Hi Jean,

I am hoping you can point me in the right direction? Originally I thought Angela Ayers would be a good person to start with but perhaps it's someone else? Anyway, there's obviously a tremendous amount of national press surrounding the drinking water problems in Flint. My team and I from our New Jersey and Boston offices have casually discussed, for the last couple weeks, how we could quite easily, quickly, cost effectively and permanently repair damaged water pipes on behalf of the State of Michigan, Governor Snyder and certainly the people of Flint. My company, SilverLining®, features a patented, one of a kind pipelining technology and methodical field expertise to repair and rehabilitate compromised pipe (like the ones in Flint) better than new without digging, disruption and the cost associated with brand new pipe.

Who might I be able to speak with to further discuss what would be a phenomenal solution to a very challenging problem?  
Thanks in advance for your assistance.  
John

**John Swon**  
**Executive Vice President**

**SilverLining**

Pipelining Technology

908.367.3936 office

908.477.3077 cell

[www.silverlng.com](http://www.silverlng.com)

---

**From:** Stoken, Laura (GOV)  
**Sent:** Thursday, January 28, 2016 4:55 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Company - FLINT, MI WATER SOLUTION 4:03 PM & A Way To Pay The Bill!!!  
**Attachments:** jeffybond.doc; tshirtxy.jpg; OBAMACARE\_REPLACEMENT.pdf

**From:** Jeffrey Cutler [mailto:[eltaxcollector@gmail.com](mailto:eltaxcollector@gmail.com)]  
**Sent:** Thursday, January 28, 2016 4:33 PM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** FLINT, MI WATER SOLUTION 4:03 PM & A Way To Pay The Bill!!!

Dear Gov. Snyder;

My solution is trivial...Create a combination **Water Meter/Analyzer/Filter** and install them on each property. This can be created **from off the shelf hardware right now!!!** It defines the problem to a fixed cost at each property, with essentially a fixed cost installation.

Pay for it via payment system called a jeffybond (see attached). I applied for a copyright on the term a couple of weeks ago.

**THIS WOULD COST THE STATE NOTHING!!!**

Jeffrey Cutler  
East Lampeter Township Tax Collector

I am a Drexel University Graduate, AND TRYING TO SAVE THE CONSTITUTION!!

[https://www.youtube.com/watch?v=mgCle8F\\_zUk](https://www.youtube.com/watch?v=mgCle8F_zUk)

<https://search.yahoo.com/yhs/search?p=youtube+tax+collector+obamacare&ei>

<http://www.americanfreedomlawcenter.org/case/jeffrey-cutler-v-u-s-dept-of-health-human-services/>

<http://thenewrevere.com/2015/07/exclusive-consensus-is-the-new-word-for-censorship/>

[stokenl@michigan.gov](mailto:stokenl@michigan.gov)

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 18, 2016 9:28 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: Vendor inquiries (1/2)  
**Attachments:** FW Vendors Spreadsheet.xlsx; ATT00001.htm; FW 1.zip

Sent from my iPhone

Begin forwarded message:

**From:** "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
**To:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** FW: Vendor inquiries (1/2)

Hi Jeff. For your group.

Kevin

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Sachs, Tori (GOV)  
Sent: Tuesday, February 09, 2016 7:34 PM  
To: Lord, Daniel (DNR); Weise, Kevin (MSP)  
Subject: Vendor inquiries (1/2)

Before we started the online portal, I compiled a spread sheet of vendor inquiries. They are attached. The folders have the full documents folks have sent.

Let me know if you have any questions.

Thanks,  
Tori

Tori Sachs  
External Affairs Advisor  
Office of Gov. Rick Snyder  
C: 517-775-3688

Inquiry Number	Name
1	Bob Lube
2	Dr. Julius J. Rim
3	Marc Zhao
4	Dr. Tammy Born
5	Henry Clark
6	David Loveday
7	Mark Zuckerman
8	Mike Wahlfield
9	Matt Kaye
10	Zijuan Liu, Ph.D.
11	Suzanne Jamail
12	Gopal N. Hegde/John Henderson
13	Dan Hutchins
14	Camilla M. Eng
15	John Bidigare
16	Monique Rene Coates
17	Birgit Strobel
18	Heather Jepsen
19	John Lyman
20	Jeff Tolman
21	Alan M. Weiss
22	John Ballor
23	Richard Kreidler
24	Val Vail-Shirey
25	Katie A. Jones
26	John Herrick
27	Steven Draper
28	Greg Winike
29	Mike Armstrong
30	Kina Kocsis
31	Andy Andersen
32	Claudia Ordonio
33	Ed Kent
34	Candi Layman
35	Mike Compagnoni
36	Cody Beausejour
37	Bethany Thayer
38	Chase Bonhag
39	George W. Jackson, Jr.
40	Derek Sova
41	Eric Brown
42	Jack Lee
43	Ryan Mitchell
44	Dennis Cawthorne
45	David Laurier
46	John Swon

47

48

49

50

Service

Patent pending technology to eliminate harmful water contaminants

Lead trapping water filters

Brita Faucet Water Filter System

Chelation therapy removes lead (heavy metals) from the body, Offered to help in Flint. She said she is willing to train, tea

Clean water filtration/energy production

Certified water treatment products

A counter-top filtration system for use to protect from lead poisoning at the kitchen and / or bathroom faucets

Well Drilling advice

Lead removing filters

Lead studies and research

Psychological help for families

Water treatment expertise

Water treatment program to remove metals

Plastic piping

Water Main Replacements

Paragon Water Systems - Countertop Filtration System

Water dispenser for potable water with integrated filters

Water from air machines

Portable water purification

Water purification system

Nano-Technology Water Purification Filter

Waste to Energy Plasma Technology

Corrosion/hard water control system

Integrity monitoring system

Bottled Water Drive

Temporary Bill Solution

Non-profit organization who could volunteer their services – specifically referring to plumbing in Flint schools

Have capability to remove contaminated water w/ no capital expenditure to city-could begin process w/ 2 weeks

Would like to share info in effort to help Flint water situation

Recommending Anway eSpring Water Treatment Systems

PQ® Soluble Silicates: For Protection of Water Systems From Corrosion

Personal water bottles that filter out lead and heavy metals, viruses, bacteria and much more

Ph.D./Hydrologist who has done a great deal of consulting work for New England municipalities.

EPA Superfund Site

CGI with DCMC disaster recovery

Independent research on costs to build a water distillery

Nutrition resources, meal and snack planning, nutrition assessment and medical nutrition therapy in the treatment of ad

ANDalyze water lead testing

Real estate development

Long-term solution advice to deal with those who may have been affected

Pipe reconstruction/installation

Mobile c unit capable of cleaning 1.2 million gallons of water a day

Emergency Response Trailer from Pure Box Water

Japanese patented water cleansing technology that is capable of cleaning/removing large amounts of iron, lead, and bac

On-line analyzers that detect a PPT/PPB/PPM levels Pb & Cu, and virtually all trace metals of importance

A patented, one of a kind pipelining technology and methodical field expertise to repair and rehabilitate compromised pi









---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 18, 2016 9:28 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: 2/3  
**Attachments:** FW 3 (2).zip; ATT00001.htm; FW 4.zip; ATT00002.htm

Sent from my iPhone

Begin forwarded message:

**From:** "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
**To:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** FW: 2/3

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Sachs, Tori (GOV)  
Sent: Tuesday, February 09, 2016 7:37 PM  
To: Lord, Daniel (DNR); Weise, Kevin (MSP)  
Subject: 2/3

The last email was too big.

**INDUSTRIAL  
CHEMICALS  
DIVISION**



**The PQ Corporation**

**THE PQ CORPORATION**

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**IN AUSTRALIA**

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Phone: 61-3-9708-9200

**IN TAIWAN**

PQ Silicates Ltd.  
Phone: 886-2-2383-0515

**Bulletin 37-3**

# **PQ® Soluble Silicates: For Protection of Water Systems From Corrosion**

## **INTRODUCTION**

Soluble silicates are economical, effective, and environmentally responsible chemicals which have been used for more than 70 years to protect metals from the corrosive effects of water.<sup>1</sup> They are classified as corrosion inhibitors because they can deposit protective films onto various metal surfaces, isolating the metal from any further corrosive attack, and because they raise water pH which can make it less corrosive to metals. Silicates do not contribute zinc or phosphorous to treated water.

Laboratory and field experience has shown that silicate corrosion inhibitors are effective in many different types of water. Protection is provided in both acidic and alkaline water. In harder water slightly more silicate is needed to achieve the same degree of corrosion inhibition, since some of the injected silica may react with hardness ions before it has a chance to bond onto metal surfaces

PQ® silicates have been successfully used for corrosion control in water supplies of municipalities, industrial plants, oil refineries, textile mills, private residences, apartment buildings, and office buildings. Their corrosion inhibition properties also make them key ingredients in such products as automobile antifreeze and laundry detergents.

## **WHAT ARE SOLUBLE SILICATES?**

PQ Corporation manufactures sodium and potassium silicates. These soluble silicates are produced by fusing high purity silica sand and sodium carbonate (or potassium carbonate) at temperatures of 1000 - 1500°C. The resulting product is an amorphous glass that can be dissolved in water to produce silicate solutions, sometimes referred to as "waterglass." The silica in a silicate solution is present as both monomeric and polymeric anionic species (Figure 1), that exist in equilibrium with each other.<sup>2</sup>

Ratio and silicate concentration are two important factors that influence what species are present in solution. At concentrations typical for corrosion control, the silica monomer predominates.<sup>3</sup>

The proportion of silica to alkali in a sodium silicate is expressed as the weight ratio  $\text{SiO}_2/\text{Na}_2\text{O}$ . It is one of the main characteristics that influences product properties and distinguishes one product from another.

PQ manufactures liquid sodium silicates which range in ratio from 1.60 to 3.22. Typically, 2.00 or 3.22 ratio sodium silicate solutions, containing 25 to 30%  $\text{SiO}_2$ , are used for municipal water treatment.

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Phone: 31-33-450-9030

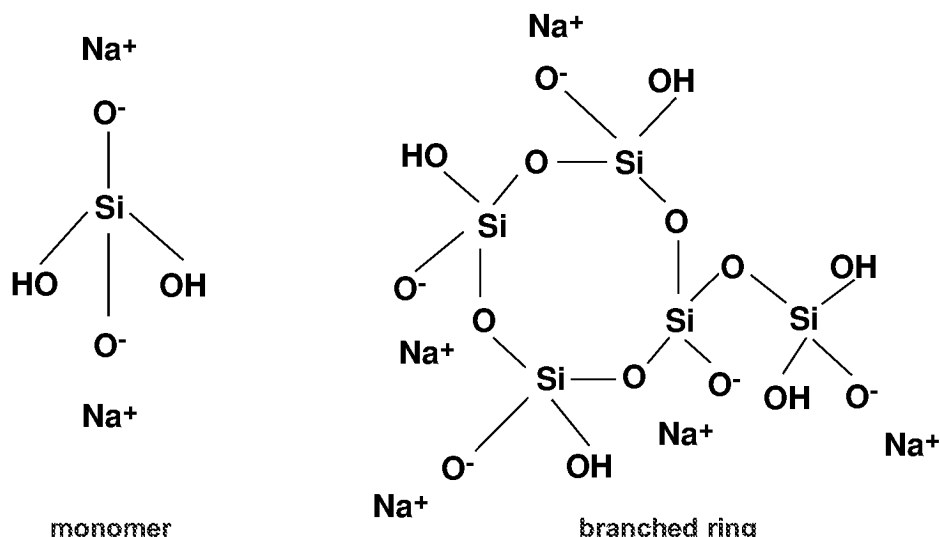
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**FIGURE 1. TWO SILICA STRUCTURES FOUND IN  
SODIUM SILICATE SOLUTIONS**



**Terminology: Silica vs. Silicate**

The term "silica" refers to the compound silicon dioxide ( $\text{SiO}_2$ ). Water is typically analyzed for silica as part of normal water quality analysis procedures. Silica levels are usually reported as mg  $\text{SiO}_2/\text{L}$ .

"Silicate" is a generic term for compounds that contain silicon, oxygen, and one or more metals. They can be naturally occurring or synthetic. As an example, PQ's synthetic sodium silicate compounds can be represented by the generalized formula  $\text{Na}_2\text{O} \cdot x\text{SiO}_2$ , where "x" varies from 1.60 to 3.22 for commercial products.

Naturally occurring silicate minerals make up nearly 90% of the earth's crust.<sup>4</sup> Dissolved silica is a minor but ubiquitous constituent of the hydrosphere.<sup>5</sup>

Commercial soluble silicates have a higher degree of polymerized silica species than natural dissolved silica because of higher concentrations; however, when diluted they depolymerize to molecular species that are indistinguishable from natural dissolved silica.<sup>6</sup>

**PHYSIOLOGICAL AND ENVIRONMENTAL  
EFFECTS OF SODIUM SILICATE**

Sodium silicate adds silicate anions, together with sodium and hydroxyl ions, to water.

Silica is found to some extent in all natural waters and is believed to be ecologically harmless. The charged, polymeric nature of the silica found in synthetic silicate solutions is responsible for its reaction with metals and corrosion inhibition properties.

The sodium content of water will increase slightly with sodium silicate addition. This issue has been raised as a concern in some instances. At the highest dosages recommended for potable water treatment (24 mg  $\text{SiO}_2/\text{L}$ ), PQ's N® sodium silicate will contribute less than 5.6 mg Na/L to the water.

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Furthermore, when using N silicate at normal maintenance dosages of 4-12 mg  $\text{SiO}_2/\text{L}$ , the sodium contribution is 0.9-2.8 mg  $\text{Na}/\text{L}$ , respectively. When other sodium silicates are used, the sodium contribution will be different depending on the weight ratio of  $\text{SiO}_2/\text{Na}_2\text{O}$ . If no sodium addition is tolerable, potassium silicates offer an alternative.

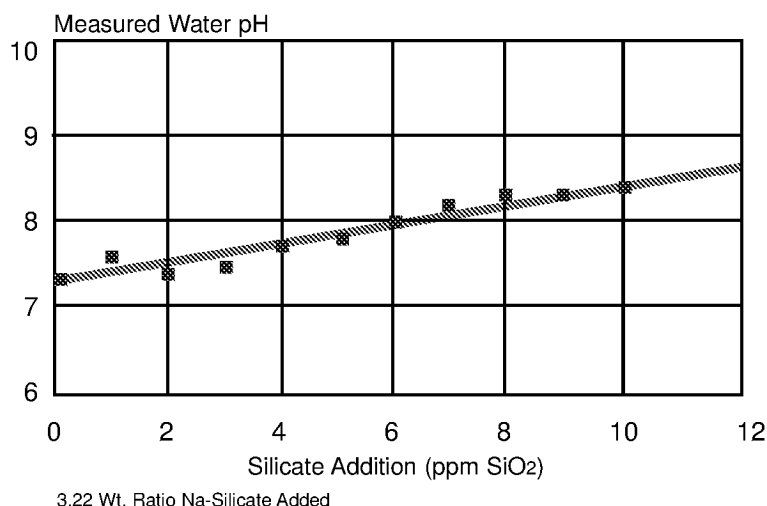
Neither sodium nor potassium silicate corrosion inhibitors contribute phosphorus or metals such as zinc to the ecosystem. These are concerns with other corrosion inhibitors, especially phosphorus-based types.

### pH EFFECTS

Sodium silicates are alkaline chemicals. Treating water at typical levels of 4-24 mg  $\text{SiO}_2/\text{L}$  may raise the water pH anywhere from 0.1 to 2.0 pH units or more. The actual pH increase will depend on overall water quality and silicate dosage. See Figure 2 for example. Increases in pH will generally help minimize corrosion and will provide a synergistic effect along with deposition of monomolecular silica film.

**FIGURE 2. pH RESPONSE WITH SILICATE ADDITION**

LAKE TAHOE WATER pH RESPONSE TO SODIUM SILICATE ADDITION



### APPROVALS FOR USE

The use of sodium silicates for the control of corrosion in municipal water systems is approved by the American Water Works Association and the American National Standards Institute (refer to ANSI/AWWA Standard B404). Sodium silicate also has Food and Drug Administration (FDA) unpublished "generally recognized as safe" (GRAS) status as a corrosion preventative in water (at levels below 100 mg/L).<sup>7</sup>

The U.S. Environmental Protection Agency (EPA) recognizes that silicate inhibitors may be effective in controlling corrosion of lead and copper in potable water systems.<sup>8</sup>

### THE NATURE OF SILICATE CORROSION INHIBITION

Studies have shown that soluble silicates are reactive with cationic metals and metal surfaces.<sup>9</sup> This phenomenon is the basis by which silicates inhibit corrosion and is illustrated at the top of the following page.<sup>10</sup>

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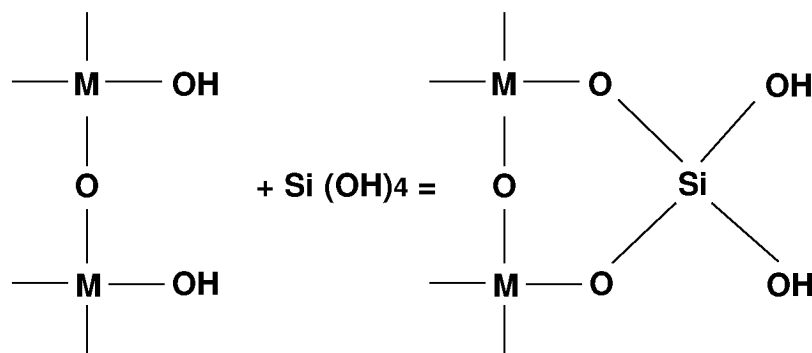
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**FIGURE 3. DEPOSITION OF SILICA ON METAL SURFACE**



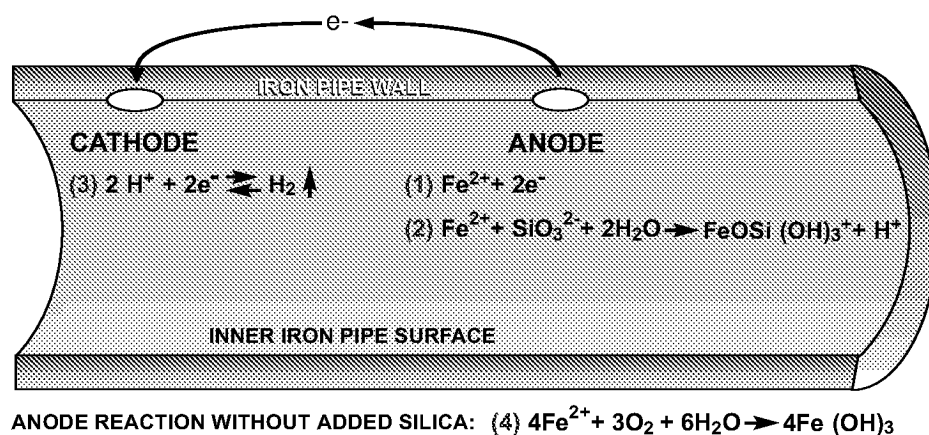
Monomeric and polymeric silica, introduced into a water distribution system as sodium silicate solution, is carried by flowing water to all parts of the distribution system. At the dilution levels used for water treatment, the majority of the silica depolymerizes to a reactive monomer form. The monomeric silica, which can be represented by  $(\text{SiO}_3)^{2-}$ , is adsorbed onto metal pipe surfaces at anodic areas, forming a thin monomolecular film on the interior of the pipe. This prevents any further corrosive reaction at the anode.

Corrosion will be inhibited when an anodic reaction of the type proposed between ferrous iron and silica (shown as equation (2) in Figure 4) occurs in place of the reaction which forms ferric hydroxide (shown as equation (4) in Figure 4). Protective films can be formed by such a reaction.

Microscopic and x-ray examination of the film formed at the metal surface show two layers, with most of the silica in the surface layer adjacent to the water. When the hydrous metal oxide film has been covered with a silica film, silica deposition stops.<sup>11</sup> The film does not build on itself, and therefore will not form excessive scale. The film is an electrical insulator and blocks the electrochemical reactions of corrosion, yet it is thin enough that it does not obstruct water flow.<sup>12</sup>

Corrosion protection with PQ sodium silicates can be achieved by modifying the  $\text{SiO}_2$  content of the water. Therefore the key water property is  $\text{SiO}_2$  con-

**FIGURE 4. POSTULATED ELECTROCHEMICAL REACTIONS OF IRON IN WATER, WITH AND WITHOUT ADDED SILICA**





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tent, not pH or calcium level, as in other types of corrosion control practices. Alkalinity, pH, and water hardness may influence the effectiveness of silicate treatment.

In many cases, natural  $\text{SiO}_2$  found in water probably has already "reacted" (i.e., adsorbed) with other metals in the water and may not be effective in reacting with metal pipes. Therefore, a fresh source of "reactive"  $\text{SiO}_2$  is needed (as from soluble silicate solutions).

**LENGTH OF CARRY**

When silicate treatment is first started, the system near the point of application is coated immediately; then the film continues to form at greater distances. Eventually, with continued feeding and sufficient water flow rate, the treatment becomes effective throughout the entire system.

Once the film has been created, the protection is maintained as long as silicate treatment is continued; if stopped, the protection is gradually lost. If damaged, the film is self healing, as long as the silicate feed is continued.

**METALS PROTECTED**

Silicate treatment is effective in controlling corrosion of many different metals and in systems made up of a variety of metals.

**METALS THAT HAVE BEEN SUCCESSFULLY PROTECTED  
BY TREATMENT OF SOLUBLE SILICATES:**

- |                                   |                    |
|-----------------------------------|--------------------|
| ■ Lead                            | ■ Galvanized Steel |
| ■ Copper                          | ■ Bronze           |
| ■ Cast Iron and<br>Ferrous Metals | ■ Red Brass        |
| ■ Steel                           | ■ Yellow Brass     |
|                                   | ■ Nickel Alloys    |

**PROTECTION OF CEMENTICIOUS MATERIALS**

Addition of silicate to water systems can protect cementitious materials from long term deterioration. The silicate reacts with available calcium to form insoluble calcium-silicate compounds. Studies have shown that silicate treatment may reduce the breakdown of asbestos-cement surfaces, thus prolonging the life of the material and minimizing the release of fibril asbestos.<sup>13</sup>

**COST OF TREATMENT**

The cost for silicate treatment will vary, depending on the amount of silicate being fed into the water system, and the quantities purchased.

**A GENERAL EQUATION FOR DETERMINING THE COST OF  
SILICATE TREATMENT IS:**

$$\frac{[8.34] [a] [b]}{[c]} = \frac{\$}{\text{MG water}}$$

a = desired  $\text{SiO}_2$  dose (in mg/L or ppm)  
b = \$/pound silicate solution  
c = wt. %  $\text{SiO}_2$  in silicate (decimal format)

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## TESTING THE EFFECTIVENESS OF SILICATE TREATMENT

The effectiveness of silicate corrosion inhibitors can be evaluated in a number of ways. Options include:

1. Monitoring levels of dissolved metals (e.g., Fe, Cu, Pb) in water samples before and after treatment.
2. Conducting pipe-loop studies based on U.S. Army Construction Engineering Research Laboratory (USA-CERL) and/or American Water Works Association Research Foundation (AWWARF) procedures.
3. Conducting coupon testing based on ATSM Test Method D-2688, "Corrosivity of Water in the Absence of Heat Transfer."

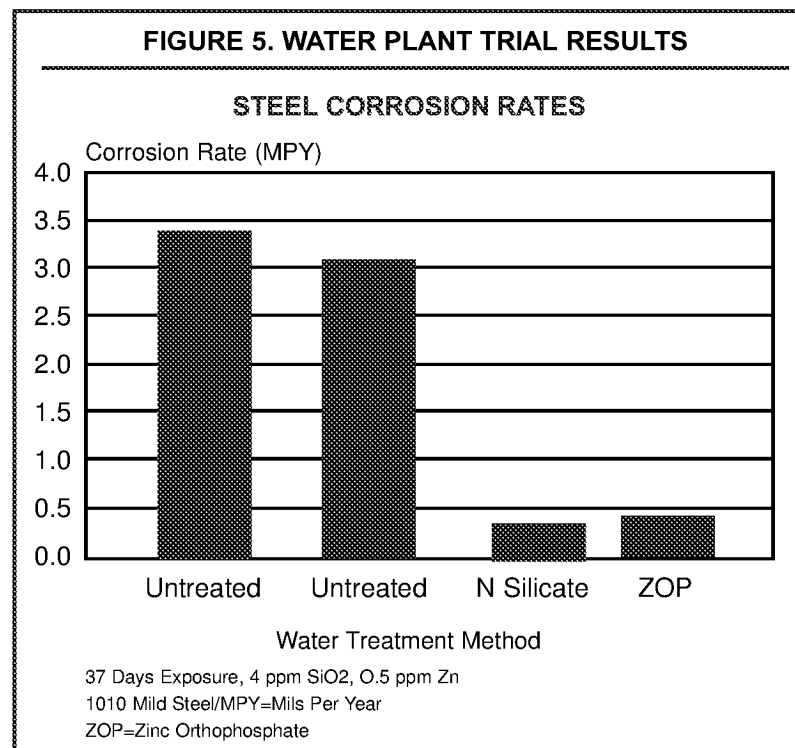
Results from a coupon test are presented in Figure 5. The water source was a surface water in southern California. The treatment levels of silicate and zinc orthophosphate used were cost equivalent.

These results are valid for the specific water tested and actual test conditions. The effectiveness of silicates on other waters may vary.

Current theory postulates that the presence of some corrosion product on the metal surface will enhance the effectiveness of the silicates since the reaction is believed to be between silica species and cationic metals (Figure 4). It is therefore recommended that coupon specimens and pipe loops be exposed to untreated water for a "conditioning" period prior to passivation. This practice will also be more representative of conditions that exist in actual water systems where corrosion has already occurred.

During lab or pilot testing, as in actual field use, a relatively high passivation dose of  $\text{SiO}_2$  is required initially for at least 30 days in order to establish the protective film on metal surfaces.

PQ technical service personnel are available to assist in evaluations of silicate corrosion inhibitors.





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**SUGGESTED PQ SILICATES FOR MUNICIPAL WATER TREATMENT**

Either PQ's N® or D® sodium silicate solutions can be used for corrosion control. The choice will depend on water quality and operator preference. Since D silicate is slightly more alkaline than N, it may be preferred in lower pH waters (e.g., water with pH below 6.0).

**TYPICAL PROPERTIES OF PQ SODIUM SILICATES**

PQ Product Name	N®	D®
Wt. Ratio (SiO <sub>2</sub> /Na <sub>2</sub> O)	3.22	2.00
%Na <sub>2</sub> O	8.9	14.7
%SiO <sub>2</sub>	28.7	29.4
Density @20°C (°Be)	41.0	50.5
(lb./gal.)	11.6	12.8
(g/cm <sup>3</sup> )	1.38	1.53
pH	11.3	12.7
Viscosity @20°C (cps)	180	400

**OTHER SILICATES**

In addition to solutions, PQ offers silicates in powder and glass form. The products (e.g., SS® or METSO®) can be mixed with other inhibitors to produce blended products.

**SILICATE DOSAGES**

Although there is natural silica (SiO<sub>2</sub>) in many waters, it may or may not have any inhibiting effect and is generally not considered in determining the dosage of the silicate treatment.

**PASSIVATION DOSAGE**

Normally, relatively high dosages of silicate are required during the first 30 to 60 days of treatment in order to form the initial protective coating. This initial silicate dosage is referred to as a passivation dosage and should be 24 mg/L above the background silica level.

The actual amount of time required to establish the initial coating will depend on the amount of silicate injected, water quality, water flow rates, and system length.

**MAINTENANCE DOSAGE**

After the first 30 to 60 days of treatment, or once film formation has been verified (i.e., by SiO<sub>2</sub> balance), the dosage can be reduced to a maintenance dose. It is advisable to reduce the silica dose incrementally, for example by lowering it to 12 mg SiO<sub>2</sub>/L for a period of time (e.g., 30 days), then 8 mg SiO<sub>2</sub>/L, and possibly even down to 4 mg/L. Silica balances should be done over the system as the dosage is decreased in order to verify that the protective film remains intact.

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## CALCULATING SILICATE DOSAGES

It is important to remember that commercial sodium silicate solutions consist of various proportions of silica (expressed as weight percent  $\text{SiO}_2$ ), alkali (expressed as  $\text{Na}_2\text{O}$ ), and water. The required silicate injection is based on the % $\text{SiO}_2$  in the silicate, the water flow rate through the system, and the desired incremental  $\text{SiO}_2$  level.

The following general equation can be used to determine silicate solution feed rates in gallons per day:

$$\frac{[8.34] [a] [b]}{[c] [d]} = \frac{\text{gallons silicate solution}}{\text{day}}$$

a = water flow rate (MGD)

b = desired  $\text{SiO}_2$  dose (mg/L or ppm)

c = wt. % $\text{SiO}_2$  in silicate (decimal format)

d = density of silicate (lb./gal.)

Example:

a = 2MGD

b = 24 mg  $\text{SiO}_2$ /L

c = 0.287 (wt. % $\text{SiO}_2$ )

d = 11.6 lb./gal.

$$\frac{[8.34] [2] [24]}{[0.287] [11.6]} = \frac{120.2 \text{ gal. silicate solution}}{\text{day}}$$

Alternatively, the following more specific relationships can be used:

### Using N® Silicate

To obtain: 1 mg  $\text{SiO}_2$ /L

Inject: 2.50 gal. N® per MG Water

For example, to get an incremental dosage of 8 mg  $\text{SiO}_2$ /L into a water stream flowing at 10 million gallons per day, 200 gallons per day N silicate must be injected ( $2.5 \times 8 \times 10 = 200$ ).

### Using D® Silicate

To obtain: 1 mg  $\text{SiO}_2$ /L

Inject: 2.25 gal. D® per MG Water

For example, to get an incremental dosage of 8 mg  $\text{SiO}_2$ /L into a water stream flowing at 0.5 million gallons per day, 9 gallons per day D silicate must be injected ( $2.25 \times 8 \times 0.5 = 9$ ).

In situations with low water flow rates it may be necessary to dilute the sodium silicate solution in order to get feed rates within the operating range of typical metering pumps.

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## **DETERMINING WHEN A PROTECTIVE FILM HAS BEEN FORMED IN A DISTRIBUTION SYSTEM BY SILICA BALANCE**

One way to monitor formation of the protective silica film is to do a silica ( $\text{SiO}_2$ ) balance around the distribution system. This involves first determining the normal background level of  $\text{SiO}_2$  in the water to be treated, and monitoring it periodically to make sure any changes are recognized.

The silicate treatment will involve introducing a known incremental amount of  $\text{SiO}_2$  (e.g., 24 mg/L). Once treatment begins, water samples at strategic end points of the distribution system are periodically checked for  $\text{SiO}_2$ . Once the incremental level of  $\text{SiO}_2$  at the ends of the distribution system matches the amount being introduced, no more  $\text{SiO}_2$  is being consumed (i.e., becoming part of the protective film). This means the initial protective coating has been formed, and the treatment dosage can gradually be reduced to a maintenance dosage which will maintain the protective film.

It is important to continuously feed the silicate maintenance dose in order to preserve the film. If silicate treatment is stopped, the film will gradually dissolve.

## **DETERMINATION OF SILICA**

Test kits for determination of silica, as well as continuous monitoring equipment, are available from firms such as:

### **Hach Chemical Company**

**P.O. Box 389  
Loveland, Colorado 80539**

Classical laboratory procedures for the determination of silica by colorimetric and photometric techniques may be found in standard texts on inorganic analysis.

Such procedures are published in "Standard Methods for the Examination of Water and Waste Water," American Public Health Association, Washington, D.C., or in current ASTM Book of Standards (ASTM Designation D-859, "Standard Test Method for Silica in Water").

Test methods for silica determination should be reviewed concerning possible interference effects that may influence the accuracy of results.

## **METHODS OF FEEDING**

Sodium silicate solutions can be easily added to water by means of positive displacement metering pumps. Piston, plunger, diaphragm and gear pumps are suitable. Chemical feed rates can be adjusted by changing the length and speed of the piston or diaphragm stroke, or by adjusting the gear speed.

Silicate solution should be injected at a point near the discharge of the water treatment plant, after final filtration, (i.e., at the clear well). With groundwater, the silicate can be injected at the well site. The silicate feed pump can be wired to activate based on water flow rates, or in conjunction with water transport pumps, in order to maintain the proper proportion of silicate to water.

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Aside from a suitable storage tank and feed pump, no special equipment is required to use silicate. The silicate solution can be stored in drums, day-tanks, or if delivered in tanker trucks, in bulk storage tanks. It can be fed at delivered concentration or diluted with water. If diluted, this must be considered when calculating dosages.

The internals of the silicate feed pumps should be flushed with water when they are taken out of service (e.g., during routine maintenance.) For additional information refer to PQ bulletin 17-70, "Storage and Handling of PQ Liquid Sodium and Potassium Silicates."

**SAFETY**

Sodium silicate solutions are inorganic compounds. They are not explosive or flammable and are not classified as hazards in U. S. Department of Transportation shipping regulations.

Due to their moderate alkalinity, care should be taken to prevent contact of silicate solutions with eyes and skin. Personnel involved in unloading and/or handling silicate solutions should use protective clothing and equipment to prevent accidental contact. This equipment generally consists of hard hat, chemical goggles or face shield, alkali-resistant gloves, safety footwear and coveralls.

If silicate is splashed into the eyes, flush immediately with warm water and seek medical attention. If splashed on the skin, sodium silicate solution should be washed off with water, preferably warm water. If allowed to remain in contact with the skin, irritation may result.

Wet silicate spills are slippery and will dehydrate to form glass-like films; therefore, it is recommended that minor spills be rinsed with water immediately.

Some dried deposits of liquid silicate may form sharp edges (e.g., if spilled around openings of sample jars), and care should be taken in such cases since skin cuts may result. Such cuts should be washed with water and given appropriate medical attention to prevent infection.

Additional safety information is contained in Material Safety Data Sheets supplied by PQ Corporation.

**SUMMARY TABLE**

1. Soluble silicates are economical, effective, and environmentally responsible chemicals that have been used for more than 70 years to protect metals from the corrosive effects of water. They do not contribute zinc or phosphorus to the environment.
2. Silicates are approved as direct additives to potable water. They are nonhazardous, nontoxic, and nonflammable. They do not impart any taste or odor to water.
3. American Water Works Association Standard for Liquid Sodium Silicate (ANSI/AWWA B404) recognizes the use of sodium silicate in water treatment.
4. The U.S. Environmental Protection Agency recognizes that silicates may be effective in controlling lead and copper corrosion in potable water systems.
5. At the dilutions typical in water treatment, most of the added silica is in the monomeric form.



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6. The silica in sodium silicate solutions carries a negative charge and will migrate to anodic areas where it can react with metallic ions and form a protective film that inhibits corrosion.
7. The alkali present in silicate will typically raise pH. Increases in pH generally lead to decreased corrosion rates.
8. The film does not build on itself and will not obstruct water flow.
9. In areas of low water flow the supply of silica may eventually be exhausted within the effective range of the electrical forces around the anode. A sufficient water flow is required to supply additional silica.
10. In areas of low flow, the pH contribution of the silicate may also be reduced.
11. If only part of the area is protected, the remainder takes all the attack of the corrosive medium. Therefore it is important to use enough inhibitor.
12. The efficacy of the silicate treatment may vary with the type of metal.
13. The treatment has inhibited corrosion in systems where two dissimilar metals are in contact.
14. A passivation dose of 24 mg  $\text{SiO}_2/\text{L}$  is recommended during the first 30-60 days of treatment in order to quickly establish the protective film.
15. After the protective film has been formed, it can be maintained by feeding less silicate. In most waters a maintenance dosage of 8 mg  $\text{SiO}_2/\text{L}$  is effective.
16. The minimum recommended maintenance dosage is 4 mg  $\text{SiO}_2/\text{L}$ .
17. Higher dosages of silicate have been shown to give better protection from corrosion.
18. Higher dosages of silicate speed the formation of the protective film.
19. Optimum silicate dosage will depend on specific water chemistry and system characteristics.
20. The preferred sodium silicate solution for treating water with pH greater than 6.0 is 3.22 ratio  $\text{SiO}_2/\text{Na}_2\text{O}$ . For waters with pH of 6.0 or lower, 2.00 ratio  $\text{SiO}_2/\text{Na}_2\text{O}$  is preferred.
21. Silicate solutions from PQ are supplied ready to use, or may be diluted.
22. Contact PQ Corporation for product samples or additional information.

**ABBREVIATIONS**

**MGD:** Million Gallons per Day

**mg/L:** Milligram per Liter

**cps:** Centipoise

**ppm:** Parts per Million

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**FACTORS FOR UNIT CONVERSIONS**

Quantity	Equivalent Values
Mass	1 kg=1000g= 0.001 metric ton = 2.20462 lb
Volume	1 m3 = 1000 liters = 106 cm3 = 106 ml = 22.83 imperial gallons = 27.41 gallons
Concentration	1 mg/L = 1 ppm = 0.0001%
Viscosity	1 centipoise = 1 millipascal-second = 0.01 poise

**LITERATURE REFERENCES**

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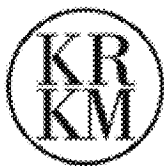
**From:** Baird, Richard (GOV)  
**Sent:** Friday, January 22, 2016 6:16 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** Fwd: PQ / Water Treatment  
**Attachments:** 37-3 Water Corrosion (2).pdf

FYI. Can't see there is any need but should close loop. Thanks.

*Sent from my Verizon Wireless 4G LTE DROID*

----- Forwarded message -----

**From:** Deb Muchmore <[muchmored@krkm.com](mailto:muchmored@krkm.com)>  
**Date:** Jan 22, 2016 5:38 PM  
**Subject:** PQ / Water Treatment  
**To:** "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>  
**Cc:**



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---

**From:** Andy Andersen(SAR) [<mailto:andy.andersen@pottersbeads.com>]  
**Sent:** Friday, January 22, 2016 3:36 PM  
**To:** Deb Muchmore <[muchmored@krkm.com](mailto:muchmored@krkm.com)>  
**Subject:** RE: KRKM Connect

Deb,

Attached is our brochure on our product with all the technical info about it. In a nutshell our product

One of the safest industrial chemicals

No toxic or volatile material

Stable for extended periods of time

No organics and Non-flammable

GRAS for food contact and use in water

NSF Certified for use in drinking water

The major advantages over phosphate use is

It removes more lead than ...

It is not a fertilizer - will not cause over growth of algae and other water plants at discharge points unlike ...

It works faster to stop the lead from coming out of the pipe than ...

And it is cheaper than ....

Let me know what you find out?

Have a great weekend

Best Regards,

Andy Andersen

Potters Industries

941-266-8442

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**From:** Deb Muchmore [<mailto:muchmored@krkm.com>]

**Sent:** Thursday, January 21, 2016 4:16 PM

**To:** Andy Andersen(SAR)

**Subject:** KRKM Connect

Thanks.





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**Bulletin 37-3**

# **PQ® Soluble Silicates: For Protection of Water Systems From Corrosion**

## **INTRODUCTION**

Soluble silicates are economical, effective, and environmentally responsible chemicals which have been used for more than 70 years to protect metals from the corrosive effects of water.<sup>1</sup> They are classified as corrosion inhibitors because they can deposit protective films onto various metal surfaces, isolating the metal from any further corrosive attack, and because they raise water pH which can make it less corrosive to metals. Silicates do not contribute zinc or phosphorous to treated water.

Laboratory and field experience has shown that silicate corrosion inhibitors are effective in many different types of water. Protection is provided in both acidic and alkaline water. In harder water slightly more silicate is needed to achieve the same degree of corrosion inhibition, since some of the injected silica may react with hardness ions before it has a chance to bond onto metal surfaces

PQ® silicates have been successfully used for corrosion control in water supplies of municipalities, industrial plants, oil refineries, textile mills, private residences, apartment buildings, and office buildings. Their corrosion inhibition properties also make them key ingredients in such products as automobile antifreeze and laundry detergents.

## **WHAT ARE SOLUBLE SILICATES?**

PQ Corporation manufactures sodium and potassium silicates. These soluble silicates are produced by fusing high purity silica sand and sodium carbonate (or potassium carbonate) at temperatures of 1000 - 1500°C. The resulting product is an amorphous glass that can be dissolved in water to produce silicate solutions, sometimes referred to as "waterglass." The silica in a silicate solution is present as both monomeric and polymeric anionic species (Figure 1), that exist in equilibrium with each other.<sup>2</sup>

Ratio and silicate concentration are two important factors that influence what species are present in solution. At concentrations typical for corrosion control, the silica monomer predominates.<sup>3</sup>

The proportion of silica to alkali in a sodium silicate is expressed as the weight ratio  $\text{SiO}_2/\text{Na}_2\text{O}$ . It is one of the main characteristics that influences product properties and distinguishes one product from another.

PQ manufactures liquid sodium silicates which range in ratio from 1.60 to 3.22. Typically, 2.00 or 3.22 ratio sodium silicate solutions, containing 25 to 30%  $\text{SiO}_2$ , are used for municipal water treatment.

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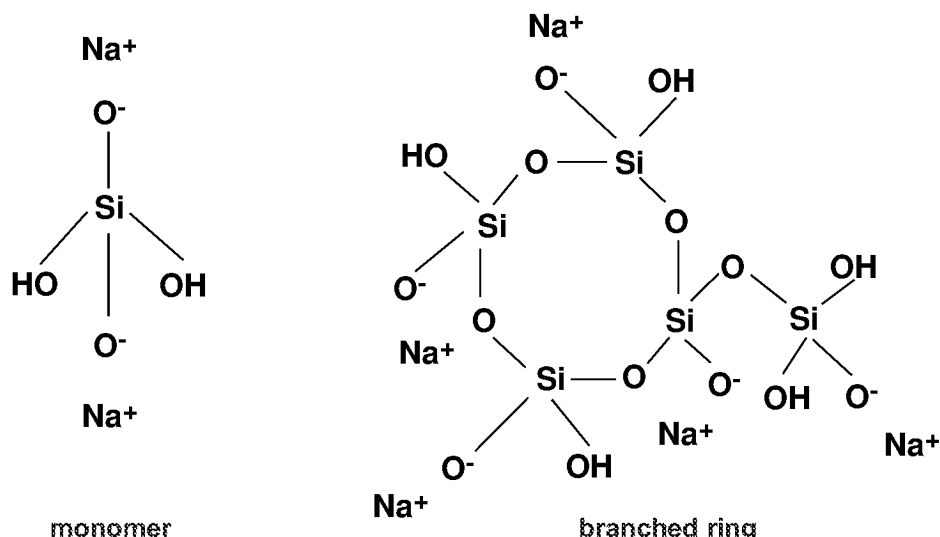
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**FIGURE 1. TWO SILICA STRUCTURES FOUND IN  
SODIUM SILICATE SOLUTIONS**



**Terminology: Silica vs. Silicate**

The term "silica" refers to the compound silicon dioxide ( $\text{SiO}_2$ ). Water is typically analyzed for silica as part of normal water quality analysis procedures. Silica levels are usually reported as mg  $\text{SiO}_2/\text{L}$ .

"Silicate" is a generic term for compounds that contain silicon, oxygen, and one or more metals. They can be naturally occurring or synthetic. As an example, PQ's synthetic sodium silicate compounds can be represented by the generalized formula  $\text{Na}_2\text{O} \cdot x\text{SiO}_2$ , where "x" varies from 1.60 to 3.22 for commercial products.

Naturally occurring silicate minerals make up nearly 90% of the earth's crust.<sup>4</sup> Dissolved silica is a minor but ubiquitous constituent of the hydrosphere.<sup>5</sup>

Commercial soluble silicates have a higher degree of polymerized silica species than natural dissolved silica because of higher concentrations; however, when diluted they depolymerize to molecular species that are indistinguishable from natural dissolved silica.<sup>6</sup>

**PHYSIOLOGICAL AND ENVIRONMENTAL  
EFFECTS OF SODIUM SILICATE**

Sodium silicate adds silicate anions, together with sodium and hydroxyl ions, to water.

Silica is found to some extent in all natural waters and is believed to be ecologically harmless. The charged, polymeric nature of the silica found in synthetic silicate solutions is responsible for its reaction with metals and corrosion inhibition properties.

The sodium content of water will increase slightly with sodium silicate addition. This issue has been raised as a concern in some instances. At the highest dosages recommended for potable water treatment (24 mg  $\text{SiO}_2/\text{L}$ ), PQ's N® sodium silicate will contribute less than 5.6 mg Na/L to the water.

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Furthermore, when using N silicate at normal maintenance dosages of 4-12 mg  $\text{SiO}_2/\text{L}$ , the sodium contribution is 0.9-2.8 mg  $\text{Na}/\text{L}$ , respectively. When other sodium silicates are used, the sodium contribution will be different depending on the weight ratio of  $\text{SiO}_2/\text{Na}_2\text{O}$ . If no sodium addition is tolerable, potassium silicates offer an alternative.

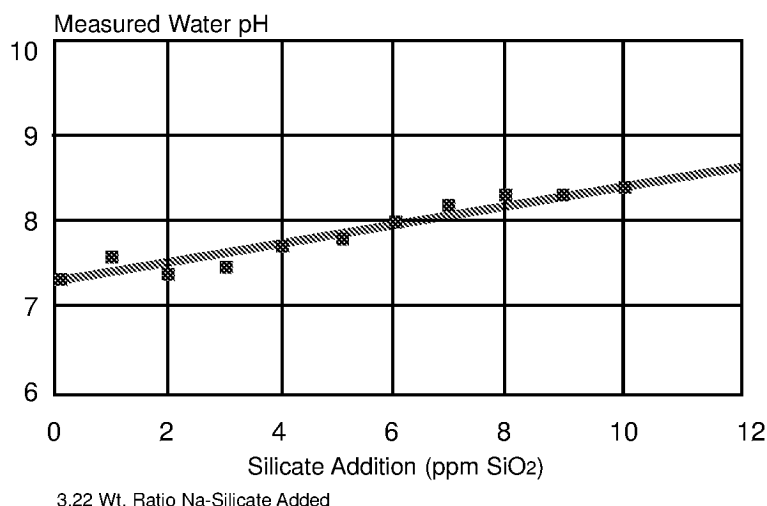
Neither sodium nor potassium silicate corrosion inhibitors contribute phosphorus or metals such as zinc to the ecosystem. These are concerns with other corrosion inhibitors, especially phosphorus-based types.

### pH EFFECTS

Sodium silicates are alkaline chemicals. Treating water at typical levels of 4-24 mg  $\text{SiO}_2/\text{L}$  may raise the water pH anywhere from 0.1 to 2.0 pH units or more. The actual pH increase will depend on overall water quality and silicate dosage. See Figure 2 for example. Increases in pH will generally help minimize corrosion and will provide a synergistic effect along with deposition of monomolecular silica film.

**FIGURE 2. pH RESPONSE WITH SILICATE ADDITION**

LAKE TAHOE WATER pH RESPONSE TO SODIUM SILICATE ADDITION



### APPROVALS FOR USE

The use of sodium silicates for the control of corrosion in municipal water systems is approved by the American Water Works Association and the American National Standards Institute (refer to ANSI/AWWA Standard B404). Sodium silicate also has Food and Drug Administration (FDA) unpublished "generally recognized as safe" (GRAS) status as a corrosion preventative in water (at levels below 100 mg/L).<sup>7</sup>

The U.S. Environmental Protection Agency (EPA) recognizes that silicate inhibitors may be effective in controlling corrosion of lead and copper in potable water systems.<sup>8</sup>

### THE NATURE OF SILICATE CORROSION INHIBITION

Studies have shown that soluble silicates are reactive with cationic metals and metal surfaces.<sup>9</sup> This phenomenon is the basis by which silicates inhibit corrosion and is illustrated at the top of the following page.<sup>10</sup>

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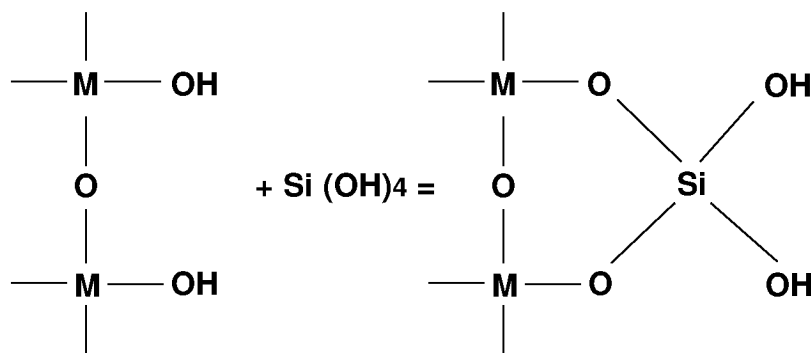
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**FIGURE 3. DEPOSITION OF SILICA ON METAL SURFACE**



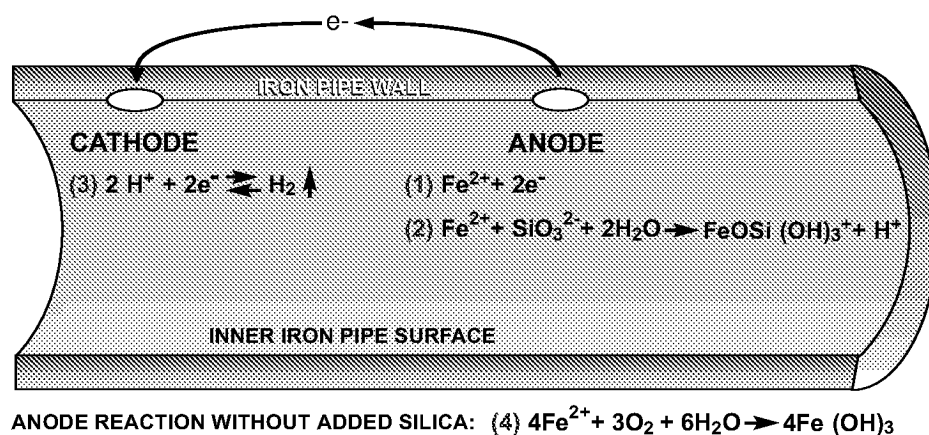
Monomeric and polymeric silica, introduced into a water distribution system as sodium silicate solution, is carried by flowing water to all parts of the distribution system. At the dilution levels used for water treatment, the majority of the silica depolymerizes to a reactive monomer form. The monomeric silica, which can be represented by  $(\text{SiO}_3)^{2-}$ , is adsorbed onto metal pipe surfaces at anodic areas, forming a thin monomolecular film on the interior of the pipe. This prevents any further corrosive reaction at the anode.

Corrosion will be inhibited when an anodic reaction of the type proposed between ferrous iron and silica (shown as equation (2) in Figure 4) occurs in place of the reaction which forms ferric hydroxide (shown as equation (4) in Figure 4). Protective films can be formed by such a reaction.

Microscopic and x-ray examination of the film formed at the metal surface show two layers, with most of the silica in the surface layer adjacent to the water. When the hydrous metal oxide film has been covered with a silica film, silica deposition stops.<sup>11</sup> The film does not build on itself, and therefore will not form excessive scale. The film is an electrical insulator and blocks the electrochemical reactions of corrosion, yet it is thin enough that it does not obstruct water flow.<sup>12</sup>

Corrosion protection with PQ sodium silicates can be achieved by modifying the  $\text{SiO}_2$  content of the water. Therefore the key water property is  $\text{SiO}_2$  con-

**FIGURE 4. POSTULATED ELECTROCHEMICAL REACTIONS OF IRON IN WATER, WITH AND WITHOUT ADDED SILICA**





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tent, not pH or calcium level, as in other types of corrosion control practices. Alkalinity, pH, and water hardness may influence the effectiveness of silicate treatment.

In many cases, natural  $\text{SiO}_2$  found in water probably has already "reacted" (i.e., adsorbed) with other metals in the water and may not be effective in reacting with metal pipes. Therefore, a fresh source of "reactive"  $\text{SiO}_2$  is needed (as from soluble silicate solutions).

**LENGTH OF CARRY**

When silicate treatment is first started, the system near the point of application is coated immediately; then the film continues to form at greater distances. Eventually, with continued feeding and sufficient water flow rate, the treatment becomes effective throughout the entire system.

Once the film has been created, the protection is maintained as long as silicate treatment is continued; if stopped, the protection is gradually lost. If damaged, the film is self healing, as long as the silicate feed is continued.

**METALS PROTECTED**

Silicate treatment is effective in controlling corrosion of many different metals and in systems made up of a variety of metals.

**METALS THAT HAVE BEEN SUCCESSFULLY PROTECTED  
BY TREATMENT OF SOLUBLE SILICATES:**

- |                                   |                    |
|-----------------------------------|--------------------|
| ■ Lead                            | ■ Galvanized Steel |
| ■ Copper                          | ■ Bronze           |
| ■ Cast Iron and<br>Ferrous Metals | ■ Red Brass        |
| ■ Steel                           | ■ Yellow Brass     |
|                                   | ■ Nickel Alloys    |

**PROTECTION OF CEMENTICIOUS MATERIALS**

Addition of silicate to water systems can protect cementitious materials from long term deterioration. The silicate reacts with available calcium to form insoluble calcium-silicate compounds. Studies have shown that silicate treatment may reduce the breakdown of asbestos-cement surfaces, thus prolonging the life of the material and minimizing the release of fibril asbestos.<sup>13</sup>

**COST OF TREATMENT**

The cost for silicate treatment will vary, depending on the amount of silicate being fed into the water system, and the quantities purchased.

**A GENERAL EQUATION FOR DETERMINING THE COST OF  
SILICATE TREATMENT IS:**

$$\frac{[8.34] [a] [b]}{[c]} = \frac{\$}{\text{MG water}}$$

a = desired  $\text{SiO}_2$  dose (in mg/L or ppm)  
b = \$/pound silicate solution  
c = wt. %  $\text{SiO}_2$  in silicate (decimal format)

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## TESTING THE EFFECTIVENESS OF SILICATE TREATMENT

The effectiveness of silicate corrosion inhibitors can be evaluated in a number of ways. Options include:

1. Monitoring levels of dissolved metals (e.g., Fe, Cu, Pb) in water samples before and after treatment.
2. Conducting pipe-loop studies based on U.S. Army Construction Engineering Research Laboratory (USA-CERL) and/or American Water Works Association Research Foundation (AWWARF) procedures.
3. Conducting coupon testing based on ASTM Test Method D-2688, "Corrosivity of Water in the Absence of Heat Transfer."

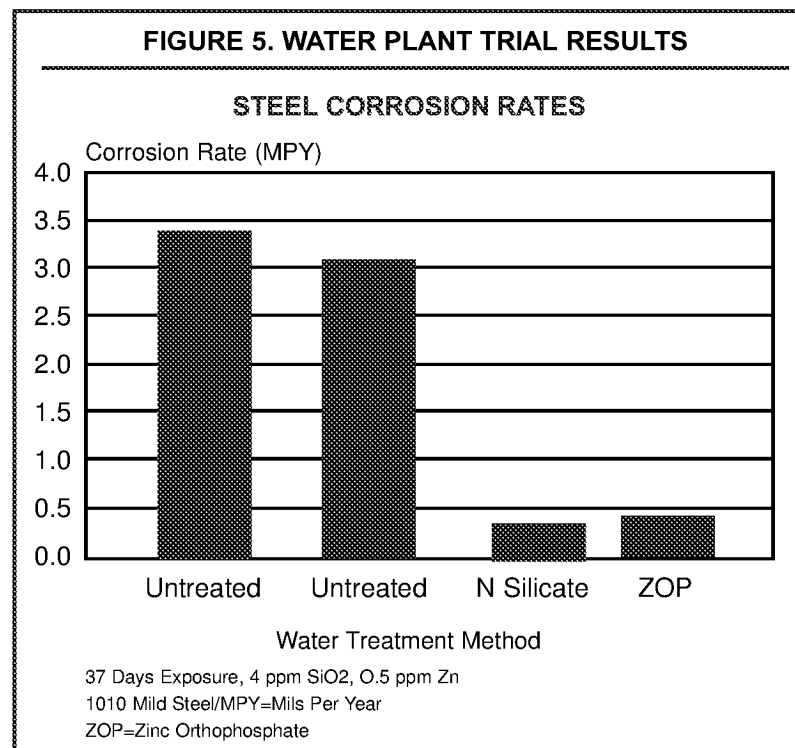
Results from a coupon test are presented in Figure 5. The water source was a surface water in southern California. The treatment levels of silicate and zinc orthophosphate used were cost equivalent.

These results are valid for the specific water tested and actual test conditions. The effectiveness of silicates on other waters may vary.

Current theory postulates that the presence of some corrosion product on the metal surface will enhance the effectiveness of the silicates since the reaction is believed to be between silica species and cationic metals (Figure 4). It is therefore recommended that coupon specimens and pipe loops be exposed to untreated water for a "conditioning" period prior to passivation. This practice will also be more representative of conditions that exist in actual water systems where corrosion has already occurred.

During lab or pilot testing, as in actual field use, a relatively high passivation dose of  $\text{SiO}_2$  is required initially for at least 30 days in order to establish the protective film on metal surfaces.

PQ technical service personnel are available to assist in evaluations of silicate corrosion inhibitors.



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**SUGGESTED PQ SILICATES FOR MUNICIPAL WATER TREATMENT**

Either PQ's N® or D® sodium silicate solutions can be used for corrosion control. The choice will depend on water quality and operator preference. Since D silicate is slightly more alkaline than N, it may be preferred in lower pH waters (e.g., water with pH below 6.0).

**TYPICAL PROPERTIES OF PQ SODIUM SILICATES**

PQ Product Name	N®	D®
Wt. Ratio (SiO <sub>2</sub> /Na <sub>2</sub> O)	3.22	2.00
%Na <sub>2</sub> O	8.9	14.7
%SiO <sub>2</sub>	28.7	29.4
Density @20°C (°Be)	41.0	50.5
(lb./gal.)	11.6	12.8
(g/cm <sup>3</sup> )	1.38	1.53
pH	11.3	12.7
Viscosity @20°C (cps)	180	400

**OTHER SILICATES**

In addition to solutions, PQ offers silicates in powder and glass form. The products (e.g., SS® or METSO®) can be mixed with other inhibitors to produce blended products.

**SILICATE DOSAGES**

Although there is natural silica (SiO<sub>2</sub>) in many waters, it may or may not have any inhibiting effect and is generally not considered in determining the dosage of the silicate treatment.

**PASSIVATION DOSAGE**

Normally, relatively high dosages of silicate are required during the first 30 to 60 days of treatment in order to form the initial protective coating. This initial silicate dosage is referred to as a passivation dosage and should be 24 mg/L above the background silica level.

The actual amount of time required to establish the initial coating will depend on the amount of silicate injected, water quality, water flow rates, and system length.

**MAINTENANCE DOSAGE**

After the first 30 to 60 days of treatment, or once film formation has been verified (i.e., by SiO<sub>2</sub> balance), the dosage can be reduced to a maintenance dose. It is advisable to reduce the silica dose incrementally, for example by lowering it to 12 mg SiO<sub>2</sub>/L for a period of time (e.g., 30 days), then 8 mg SiO<sub>2</sub>/L, and possibly even down to 4 mg/L. Silica balances should be done over the system as the dosage is decreased in order to verify that the protective film remains intact.



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## CALCULATING SILICATE DOSAGES

It is important to remember that commercial sodium silicate solutions consist of various proportions of silica (expressed as weight percent  $\text{SiO}_2$ ), alkali (expressed as  $\text{Na}_2\text{O}$ ), and water. The required silicate injection is based on the % $\text{SiO}_2$  in the silicate, the water flow rate through the system, and the desired incremental  $\text{SiO}_2$  level.

The following general equation can be used to determine silicate solution feed rates in gallons per day:

$$\frac{[8.34] [a] [b]}{[c] [d]} = \frac{\text{gallons silicate solution}}{\text{day}}$$

a = water flow rate (MGD)

b = desired  $\text{SiO}_2$  dose (mg/L or ppm)

c = wt. % $\text{SiO}_2$  in silicate (decimal format)

d = density of silicate (lb./gal.)

Example:

a = 2MGD

b = 24 mg  $\text{SiO}_2$ /L

c = 0.287 (wt. % $\text{SiO}_2$ )

d = 11.6 lb./gal.

$$\frac{[8.34] [2] [24]}{[0.287] [11.6]} = \frac{120.2 \text{ gal. silicate solution}}{\text{day}}$$

Alternatively, the following more specific relationships can be used:

### Using N® Silicate

To obtain: 1 mg  $\text{SiO}_2$ /L

Inject: 2.50 gal. N® per MG Water

For example, to get an incremental dosage of 8 mg  $\text{SiO}_2$ /L into a water stream flowing at 10 million gallons per day, 200 gallons per day N silicate must be injected ( $2.5 \times 8 \times 10 = 200$ ).

### Using D® Silicate

To obtain: 1 mg  $\text{SiO}_2$ /L

Inject: 2.25 gal. D® per MG Water

For example, to get an incremental dosage of 8 mg  $\text{SiO}_2$ /L into a water stream flowing at 0.5 million gallons per day, 9 gallons per day D silicate must be injected ( $2.25 \times 8 \times 0.5 = 9$ ).

In situations with low water flow rates it may be necessary to dilute the sodium silicate solution in order to get feed rates within the operating range of typical metering pumps.

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## **DETERMINING WHEN A PROTECTIVE FILM HAS BEEN FORMED IN A DISTRIBUTION SYSTEM BY SILICA BALANCE**

One way to monitor formation of the protective silica film is to do a silica ( $\text{SiO}_2$ ) balance around the distribution system. This involves first determining the normal background level of  $\text{SiO}_2$  in the water to be treated, and monitoring it periodically to make sure any changes are recognized.

The silicate treatment will involve introducing a known incremental amount of  $\text{SiO}_2$  (e.g., 24 mg/L). Once treatment begins, water samples at strategic end points of the distribution system are periodically checked for  $\text{SiO}_2$ . Once the incremental level of  $\text{SiO}_2$  at the ends of the distribution system matches the amount being introduced, no more  $\text{SiO}_2$  is being consumed (i.e., becoming part of the protective film). This means the initial protective coating has been formed, and the treatment dosage can gradually be reduced to a maintenance dosage which will maintain the protective film.

It is important to continuously feed the silicate maintenance dose in order to preserve the film. If silicate treatment is stopped, the film will gradually dissolve.

## **DETERMINATION OF SILICA**

Test kits for determination of silica, as well as continuous monitoring equipment, are available from firms such as:

### **Hach Chemical Company**

**P.O. Box 389  
Loveland, Colorado 80539**

Classical laboratory procedures for the determination of silica by colorimetric and photometric techniques may be found in standard texts on inorganic analysis.

Such procedures are published in "Standard Methods for the Examination of Water and Waste Water," American Public Health Association, Washington, D.C., or in current ASTM Book of Standards (ASTM Designation D-859, "Standard Test Method for Silica in Water").

Test methods for silica determination should be reviewed concerning possible interference effects that may influence the accuracy of results.

## **METHODS OF FEEDING**

Sodium silicate solutions can be easily added to water by means of positive displacement metering pumps. Piston, plunger, diaphragm and gear pumps are suitable. Chemical feed rates can be adjusted by changing the length and speed of the piston or diaphragm stroke, or by adjusting the gear speed.

Silicate solution should be injected at a point near the discharge of the water treatment plant, after final filtration, (i.e., at the clear well). With groundwater, the silicate can be injected at the well site. The silicate feed pump can be wired to activate based on water flow rates, or in conjunction with water transport pumps, in order to maintain the proper proportion of silicate to water.

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Aside from a suitable storage tank and feed pump, no special equipment is required to use silicate. The silicate solution can be stored in drums, day-tanks, or if delivered in tanker trucks, in bulk storage tanks. It can be fed at delivered concentration or diluted with water. If diluted, this must be considered when calculating dosages.

The internals of the silicate feed pumps should be flushed with water when they are taken out of service (e.g., during routine maintenance.) For additional information refer to PQ bulletin 17-70, "Storage and Handling of PQ Liquid Sodium and Potassium Silicates."

**SAFETY**

Sodium silicate solutions are inorganic compounds. They are not explosive or flammable and are not classified as hazards in U. S. Department of Transportation shipping regulations.

Due to their moderate alkalinity, care should be taken to prevent contact of silicate solutions with eyes and skin. Personnel involved in unloading and/or handling silicate solutions should use protective clothing and equipment to prevent accidental contact. This equipment generally consists of hard hat, chemical goggles or face shield, alkali-resistant gloves, safety footwear and coveralls.

If silicate is splashed into the eyes, flush immediately with warm water and seek medical attention. If splashed on the skin, sodium silicate solution should be washed off with water, preferably warm water. If allowed to remain in contact with the skin, irritation may result.

Wet silicate spills are slippery and will dehydrate to form glass-like films; therefore, it is recommended that minor spills be rinsed with water immediately.

Some dried deposits of liquid silicate may form sharp edges (e.g., if spilled around openings of sample jars), and care should be taken in such cases since skin cuts may result. Such cuts should be washed with water and given appropriate medical attention to prevent infection.

Additional safety information is contained in Material Safety Data Sheets supplied by PQ Corporation.

**SUMMARY TABLE**

1. Soluble silicates are economical, effective, and environmentally responsible chemicals that have been used for more than 70 years to protect metals from the corrosive effects of water. They do not contribute zinc or phosphorus to the environment.
2. Silicates are approved as direct additives to potable water. They are nonhazardous, nontoxic, and nonflammable. They do not impart any taste or odor to water.
3. American Water Works Association Standard for Liquid Sodium Silicate (ANSI/AWWA B404) recognizes the use of sodium silicate in water treatment.
4. The U.S. Environmental Protection Agency recognizes that silicates may be effective in controlling lead and copper corrosion in potable water systems.
5. At the dilutions typical in water treatment, most of the added silica is in the monomeric form.

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6. The silica in sodium silicate solutions carries a negative charge and will migrate to anodic areas where it can react with metallic ions and form a protective film that inhibits corrosion.
7. The alkali present in silicate will typically raise pH. Increases in pH generally lead to decreased corrosion rates.
8. The film does not build on itself and will not obstruct water flow.
9. In areas of low water flow the supply of silica may eventually be exhausted within the effective range of the electrical forces around the anode. A sufficient water flow is required to supply additional silica.
10. In areas of low flow, the pH contribution of the silicate may also be reduced.
11. If only part of the area is protected, the remainder takes all the attack of the corrosive medium. Therefore it is important to use enough inhibitor.
12. The efficacy of the silicate treatment may vary with the type of metal.
13. The treatment has inhibited corrosion in systems where two dissimilar metals are in contact.
14. A passivation dose of 24 mg  $\text{SiO}_2/\text{L}$  is recommended during the first 30-60 days of treatment in order to quickly establish the protective film.
15. After the protective film has been formed, it can be maintained by feeding less silicate. In most waters a maintenance dosage of 8 mg  $\text{SiO}_2/\text{L}$  is effective.
16. The minimum recommended maintenance dosage is 4 mg  $\text{SiO}_2/\text{L}$ .
17. Higher dosages of silicate have been shown to give better protection from corrosion.
18. Higher dosages of silicate speed the formation of the protective film.
19. Optimum silicate dosage will depend on specific water chemistry and system characteristics.
20. The preferred sodium silicate solution for treating water with pH greater than 6.0 is 3.22 ratio  $\text{SiO}_2/\text{Na}_2\text{O}$ . For waters with pH of 6.0 or lower, 2.00 ratio  $\text{SiO}_2/\text{Na}_2\text{O}$  is preferred.
21. Silicate solutions from PQ are supplied ready to use, or may be diluted.
22. Contact PQ Corporation for product samples or additional information.

**ABBREVIATIONS**

**MGD:** Million Gallons per Day

**mg/L:** Milligram per Liter

**cps:** Centipoise

**ppm:** Parts per Million



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**FACTORS FOR UNIT CONVERSIONS**

Quantity	Equivalent Values
Mass	1 kg=1000g= 0.001 metric ton = 2.20462 lb
Volume	1 m3 = 1000 liters = 106 cm3 = 106 ml = 22.83 imperial gallons = 27.41 gallons
Concentration	1 mg/L = 1 ppm = 0.0001%
Viscosity	1 centipoise = 1 millipascal-second = 0.01 poise

**LITERATURE REFERENCES**

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**From:** Stoken, Laura (GOV)  
**Sent:** Sunday, January 24, 2016 10:33 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: We have a non profit called Pure Water Movement and would like to help.  
**Attachments:** what puritii filters including Lead .jpg

For your determination

**From:** Claudia Ordonio [<mailto:dreamsrpossible4u@gmail.com>]  
**Sent:** Saturday, January 23, 2016 12:22 AM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>; Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Cc:** Claudia Ordonio <[dreamsrpossible4u@gmail.com](mailto:dreamsrpossible4u@gmail.com)>  
**Subject:** We have a non profit called Pure Water Movement and would like to help.

Dear Governor Snyder and Lt Governor Brian Calley,

I know you have been getting undated with many companies that have solutions for the Lead problem in the water. We may have a very viable solution for many families and I would like to talk to someone and connect them to our corporate office so we can see how we can help since our company has already been providing the bottles and portable tank systems as a non profit already.



**Pure Water Movement**

The Pure Water Movement, Inc. is a non-profit organization that provides clean water filter bottles and portable tank systems to people without access to clean water.

My sister Sharon DeCarlo who lives in Shelby township Michigan and I are with a company named Ariix. We have a personal water bottles that filter out lead and heavy metals, viruses, bacteria and much more and filters 50 gallons per bottle ( or 280 (16oz ) bottles of water. They can use this where ever they are not just in the home.

Here is our site information <http://puritii.com/water/index.html>

This is the independent study of what the Puritii water bottles filters out. [http://www.puritii.com/water/\\_pdf/puritii\\_testing\\_procedures.pdf](http://www.puritii.com/water/_pdf/puritii_testing_procedures.pdf)

This water bottle is already being used in Singapore and China and was used by Navy Seals in Afghanistan. I know our company can work with your office to get a large amount of water bottle to the people who need it the most.



## Microbiological Organisms

Water System	Contaminant	Detected Health Effect	Exposure Rate	Health Risk Assessment
Water System - West	Radon	Genotoxicity, cancers	500-5000 dpm/l	Exceeds standards by 100x
Water System - West	Mercury	Neurotoxicity, cancers	90-99%	Exceeds standards by 100x
Water System - West	Fluoride	Genotoxicity, cancers	500-5000 dpm/l	Exceeds standards by 1000x

## Volatile Organic Compounds (VOC's)

Water Source	Contaminant	Observed Exposure (1)	Observed Exposure (2)	Observed Exposure (3)	Exceeds Standards
Flow #Thruout Water	Air EDT	Cancer		>6.3%	Exceeds Standards
Flow #Thruout Water	Aden	Cancer, Reproductive system damage, Nervous system damage		>6.3%	Exceeds Standards
Flow #Thruout Water	Diethyl	Cancer, Reproductive system damage, Nervous system damage		>6.3%	Exceeds Standards
Flow #Thruout Water	Endosulfan Sulfate	Cancer		>6.3%	Exceeds Standards
Flow #Thruout Water	Endrin	Cancer problems		>6.3%	Exceeds Standards
Flow #Thruout Water	Heptachlor	Increased risk of cancer or liver damage		>6.3%	Exceeds Standards
Flow #Thruout Water	Endrin	Cancer or kidney problems		>6.3%	Exceeds Standards
Flow #Thruout Water	Moluthion	Cancer		>6.3%	Exceeds Standards
Flow #Thruout Water	Chloroform	Alcohol, nervous system damage, Cancer		>6.3%	Exceeds Standards

## Inorganics

Water System	Contaminant	Primary Human Effect	Prevalence Rate	Mitigation Strategies
Point A Chlorine Water	Chromium	Liver, kidney, circulatory disorders	93-97%	Exceeds Standards
Point B Fluoride Water	Lead	Nervous, circulatory system damage	>95%	Exceeds Standards
Point C Chlorine Water	Dioxin	Cancer, Reproductive system damage, Nervous system damage	>95-97%	Exceeds Standards
Point D Fluoride Water	Chromium <sup>VI</sup>	Kidney damage, cancer	>95-98%	Exceeds Standards
Point E Chlorine Water	Mercury	Brain damage	96-99%	Exceeds Standards

## Disinfectantis

Water Sample	Chlorination	Removal of Micro-Organisms	Removal of Taste	MSD Method Compliance
Private Community Water	Chlorine	Overhead filtration, chlorination	99.99%	Exceeds Standards

## Trihalomethanes / VOC

Water Sample	Contaminant	Discharge Point (km)	Percentage (%)	End Use & Comments
Point 1 (River Water)	Chlorophyll	Alto de la Barranca, system drainage, Cienega	92.60%	Excess Chlorophyll
Point 2 (River Water)	Benzene	Cienega La Laguna, Arroyo	98.57%	Excess Benzene

## Testing Procedures

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

the 1990s, the number of people in the United States who are 65 years of age or older has increased by 50 percent, and the number of people 75 years of age or older has increased by 100 percent. The number of people 85 years of age or older has increased by 200 percent. The number of people 95 years of age or older has increased by 400 percent. The number of people 100 years of age or older has increased by 1,000 percent. The number of people 105 years of age or older has increased by 2,000 percent. The number of people 110 years of age or older has increased by 4,000 percent. The number of people 115 years of age or older has increased by 8,000 percent. The number of people 120 years of age or older has increased by 16,000 percent. The number of people 125 years of age or older has increased by 32,000 percent. The number of people 130 years of age or older has increased by 64,000 percent. The number of people 135 years of age or older has increased by 128,000 percent. The number of people 140 years of age or older has increased by 256,000 percent. The number of people 145 years of age or older has increased by 512,000 percent. The number of people 150 years of age or older has increased by 1,024,000 percent. The number of people 155 years of age or older has increased by 2,048,000 percent. The number of people 160 years of age or older has increased by 4,096,000 percent. The number of people 165 years of age or older has increased by 8,192,000 percent. The number of people 170 years of age or older has increased by 16,384,000 percent. The number of people 175 years of age or older has increased by 32,768,000 percent. The number of people 180 years of age or older has increased by 65,536,000 percent. The number of people 185 years of age or older has increased by 131,072,000 percent. The number of people 190 years of age or older has increased by 262,144,000 percent. The number of people 195 years of age or older has increased by 524,288,000 percent. The number of people 200 years of age or older has increased by 1,048,576,000 percent. The number of people 205 years of age or older has increased by 2,097,152,000 percent. The number of people 210 years of age or older has increased by 4,194,304,000 percent. The number of people 215 years of age or older has increased by 8,388,608,000 percent. The number of people 220 years of age or older has increased by 16,777,216,000 percent. The number of people 225 years of age or older has increased by 33,554,432,000 percent. The number of people 230 years of age or older has increased by 67,108,864,000 percent. The number of people 235 years of age or older has increased by 134,217,728,000 percent. The number of people 240 years of age or older has increased by 268,435,456,000 percent. The number of people 245 years of age or older has increased by 536,870,912,000 percent. The number of people 250 years of age or older has increased by 1,073,741,824,000 percent. The number of people 255 years of age or older has increased by 2,147,483,648,000 percent. The number of people 260 years of age or older has increased by 4,294,967,296,000 percent. The number of people 265 years of age or older has increased by 8,589,934,592,000 percent. The number of people 270 years of age or older has increased by 17,179,869,184,000 percent. The number of people 275 years of age or older has increased by 34,359,738,368,000 percent. The number of people 280 years of age or older has increased by 68,719,476,736,000 percent. The number of people 285 years of age or older has increased by 137,438,953,472,000 percent. The number of people 290 years of age or older has increased by 274,877,906,944,000 percent. The number of people 295 years of age or older has increased by 549,755,813,888,000 percent. The number of people 300 years of age or older has increased by 1,099,511,627,776,000 percent. The number of people 305 years of age or older has increased by 2,199,023,255,552,000 percent. The number of people 310 years of age or older has increased by 4,398,046,511,104,000 percent. The number of people 315 years of age or older has increased by 8,796,093,022,208,000 percent. The number of people 320 years of age or older has increased by 17,592,186,044,416,000 percent. The number of people 325 years of age or older has increased by 35,184,372,088,832,000 percent. The number of people 330 years of age or older has increased by 70,368,744,177,664,000 percent. The number of people 335 years of age or older has increased by 140,737,488,355,328,000 percent. The number of people 340 years of age or older has increased by 281,474,976,710,656,000 percent. The number of people 345 years of age or older has increased by 562,949,953,421,312,000 percent. The number of people 350 years of age or older has increased by 1,125,899,906,842,624,000 percent. The number of people 355 years of age or older has increased by 2,251,799,813,685,248,000 percent. The number of people 360 years of age or older has increased by 4,503,599,627,370,496,000 percent. The number of people 365 years of age or older has increased by 9,007,199,254,740,992,000 percent. The number of people 370 years of age or older has increased by 18,014,398,509,481,984,000 percent. The number of people 375 years of age or older has increased by 36,028,797,018,963,968,000 percent. The number of people 380 years of age or older has increased by 72,057,594,037,927,936,000 percent. The number of people 385 years of age or older has increased by 144,115,188,075,855,872,000 percent. The number of people 390 years of age or older has increased by 288,230,376,151,711,744,000 percent. The number of people 395 years of age or older has increased by 576,460,752,303,423,488,000 percent. The number of people 400 years of age or older has increased by 1,152,921,504,606,846,976,000 percent. The number of people 405 years of age or older has increased by 2,305,843,009,213,693,952,000 percent. The number of people 410 years of age or older has increased by 4,611,686,018,427,387,904,000 percent. The number of people 415 years of age or older has increased by 9,223,372,036,854,775,808,000 percent. The number of people 420 years of age or older has increased by 18,446,744,073,709,551,616,000 percent. The number of people 425 years of age or older has increased by 36,893,488,147,419,103,232,000 percent. The number of people 430 years of age or older has increased by 73,786,976,294,838,206,464,000 percent. The number of people 435 years of age or older has increased by 147,573,952,589,676,412,928,000 percent. The number of people 440 years of age or older has increased by 295,147,905,179,352,825,856,000 percent. The number of people 445 years of age or older has increased by 590,295,810,358,705,651,712,000 percent. The number of people 450 years of age or older has increased by 1,180,591,620,717,411,303,424,000 percent. The number of people 455 years of age or older has increased by 2,361,183,241,434,822,606,848,000 percent. The number of people 460 years of age or older has increased by 4,722,366,482,869,645,213,696,000 percent. The number of people 465 years of age or older has increased by 9,444,732,965,739,290,427,392,000 percent. The number of people 470 years of age or older has increased by 18,889,465,931,478,580,854,784,000 percent. The number of people 475 years of age or older has increased by 37,778,931,862,957,161,709,568,000 percent. The number of people 480 years of age or older has increased by 75,557,863,725,914,323,419,136,000 percent. The number of people 485 years of age or older has increased by 151,115,727,451,828,646,838,272,000 percent. The number of people 490 years of age or older has increased by 302,231,454,903,657,293,676,544,000 percent. The number of people 495 years of age or older has increased by 604,462,909,807,314,587,353,088,000 percent. The number of people 500 years of age or older has increased by 1,208,925,819,614,629,174,706,176,000 percent. The number of people 505 years of age or older has increased by 2,417,851,639,229,258,349,412,352,000 percent. The number of people 510 years of age or older has increased by 4,835,703,278,458,516,698,824,704,000 percent. The number of people 515 years of age or older has increased by 9,671,406,556,917,033,397,649,408,000 percent. The number of people 520 years of age or older has increased by 19,342,813,113,834,066,795,298,816,000 percent. The number of people 525 years of age or older has increased by 38,685,626,227,668,133,590,597,632,000 percent. The number of people 530 years of age or older has increased by 77,371,252,455,336,267,181,195,264,000 percent. The number of people 535 years of age or older has increased by 154,742,504,910,672,534,362,390,528,000 percent. The number of people 540 years of age or older has increased by 309,485,009,821,345,068,724,781,056,000 percent. The number of people 545 years of age or older has increased by 618,970,019,642,690,137,449,562,112,000 percent. The number of people 550 years of age or older has increased by 1,237,940,039,285,380,274,899,124,224,000 percent. The number of people 555 years of age or older has increased by 2,475,880,078,570,760,549,798,248,448,000 percent. The number of people 560 years of age or older has increased by 4,951,760,157,141,521,099,596,496,896,000 percent. The number of people 565 years of age or older has increased by 9,903,520,314,283,042,199,193,993,792,000 percent. The number of people 570 years of age or older has increased by 19,807,040,628,566,084,398,387,987,584,000 percent. The number of people 575 years of age or older has

These results suggest that the use of a single, non-validated questionnaire to assess the prevalence of mental health problems in the community may be inappropriate. The use of a validated questionnaire, such as the GHQ-12, may be more appropriate for the purpose of identifying mental health problems in the community. The use of a validated questionnaire may also be more appropriate for the purpose of identifying mental health problems in the community, as it may be more reliable and valid than a single, non-validated questionnaire. The use of a validated questionnaire may also be more appropriate for the purpose of identifying mental health problems in the community, as it may be more reliable and valid than a single, non-validated questionnaire.

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

**Keywords:** *depression, mood, mood disorder, mood disorder with anxiety, mood disorder without anxiety, mood disorder with anxiety, mood disorder without anxiety, mood disorder with anxiety, mood disorder without anxiety*



## Microbiological Organisms

Water System	Contaminant	Detected Health Effect	Exposure Rate	Health Risk Assessment
Water System - West	Radon	Genotoxicity, cancers	500-5000 dpm/l	Exceeds standards by 100x
Water System - West	Mercury	Neurotoxicity, cancers	90-99%	Exceeds standards by 100x
Water System - West	Fluoride	Genotoxicity, cancers	500-5000 dpm/l	Exceeds standards by 1000x

## Volatile Organic Compounds (VOC's)

Water Source	Contaminant	Observed Exposure (1)	Observed Exposure (2)	Observed Exposure (3)	Exceeds Standards
Flow #Thruout Water	A-I EDT	Cancer		>6.3%	Exceeds Standards
Flow #Thruout Water	Aden	Cancer, Reproductive system damage, Nervous system damage		>6.3%	Exceeds Standards
Flow #Thruout Water	Deble	Cancer, Reproductive system damage, Nervous system damage		>6.3%	Exceeds Standards
Flow #Thruout Water	Endos, Pan Sulfate	Cancer		>6.2%	Exceeds Standards
Flow #Thruout Water	Endo	Cancer problems		50.90%	Exceeds Standards
Flow #Thruout Water	Insptachir	Increased risk of cancer or liver damage		>6.3%	Exceeds Standards
Flow #Thruout Water	Linane	Liver or kidney problems		58.70%	Exceeds Standards
Flow #Thruout Water	Multeton	Cancer		50.52%	Exceeds Standards
Flow #Thruout Water	Chloroform	Mutic, nervous system damage, Cancer		95.68%	Exceeds Standards

## Inorganics

Water System	Contaminant	Primary Human Effect	Prevalence Rate	Advised Standards
Point A Chlorine Water	Chromium	Liver, kidney, circulatory disorders	93-97%	Exceeds Standards
Point B Fluoride Water	Lead	Nervous, circulatory system damage	>95%	Exceeds Standards
Point C Chlorine Water	Dioxin	Cancer, Reproductive system damage, Nervous system damage	>95-97%	Exceeds Standards
Point D Fluoride Water	Chromium <sup>VI</sup>	Kidney damage, cancer	>95-98%	Exceeds Standards
Point E Chlorine Water	Mercury	Brain damage	98-100%	Exceeds Standards

## Disinfectantis

Water Sample	Chlorination	Removal of Micro-Organisms	Removal of Taste	MSD 9222 & 9223
Pratap College Water	Chlorite	Over 99% reduction observed	99.50%	Exceeds Standards

## Trihalomethanes / VOC

Water Sample	Contaminant	Discharge Point (km)	Percentage (%)	End Use & Comments
Raw Effluent Water	Chlorophyll	Alameda, Tehama, Yuba Rivers Sagehen, Carson	92.60%	Excess Discharge
Raw Effluent Water	Benzene	Carson, Lakeview, Yuba	98.57%	Excess Discharge

## Testing Procedures

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

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**Abstract**—The purpose of this study was to determine the effect of a 10-week training program on the heart rate (HR) and energy expenditure (EE) of sedentary, middle-aged women. The study was conducted in a laboratory setting. The subjects were 15 sedentary, middle-aged women who were randomly assigned to either a control group or a training group. The control group performed no exercise, while the training group performed a 10-week training program consisting of three sessions per week. The HR and EE were measured at rest and during a 30-minute walk. The results showed that the training group had a significantly lower HR and EE at rest and during the walk compared to the control group. The findings suggest that a 10-week training program can improve the cardiovascular fitness and energy expenditure of sedentary, middle-aged women.

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

[illegible]

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**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, January 26, 2016 11:42 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** Solution- Company

**From:** [jbailor@hydrogen411technology.com](mailto:jbailor@hydrogen411technology.com) [<mailto:jbailor@hydrogen411technology.com>]  
**Sent:** Tuesday, January 26, 2016 11:41 AM  
**To:** Stoken, Laura (GOV) <[StokenL@michigan.gov](mailto:StokenL@michigan.gov)>  
**Subject:** Per our conversation/ Water Crisis

Dear Laura,

Thank you so much for your help! Michigan needs a real solution that will fit the states budget and solve the never ending pollution issues. As I stated this is not my companies technology but I am honored to be trusted to represent it. The inventor is a true humanitarian so each deployment must fit a criteria that involves environmental clean up. This technology has been fully vetted in uninterrupted operation for over ten years.

This is WTE (Waste to Energy) Plasma Technology which is nothing new except this is the only WTE system that can operate on dirty water alone. The by product is 100% pure water and energy. A small system could take in 300,000 gallons from the Flint River per day and produce 250,000 gallons of pure water and 10MW of Electricity. The process is 100% emission free. Water is not the only feed stock any waste can be eliminated that would include the lead infested pipes that will need to be disposed of.

This is a new way of thinking about waste. The old thinking is to dump it in our rivers and lakes or bury it and hope it go's away. Now waste is a commodity!

Why would this be the best solution? 1st. it's affordable because it is not for sale. As simple as I can describe it the City of Flint puts up 5 million dollars as what I will describe as an engagement fee for now. After the cities or states engineers visit one of the deployments and conduct load tests and all vetting. When all contracts are negotiated then money changes hands. That money is payed back to the city with interest within the 1st few years of the contract.

The owner inventor makes money from the sale of electricity. Flint gets the water for free. It's a win win but will require people working together to change the old paradigm. This will require cooperation from waste management and Consumers Electric.

At a time when the infrastructure must be rebuilt we have to consider the importance of doing it right this time.

I look forward to opening dialogue with the appropriate people.

Best Regards,

John Ballor  
Founder/ Managing Partner  
Hydrogen411 Technology LLC  
[www.hydrogen411technology.com](http://www.hydrogen411technology.com)

[jballor@hydrogen411technology.com](mailto:jballor@hydrogen411technology.com)

1-855-411-H24T (4248) Phone & Fax

989-545-9261 mobile



Hydrogen411 Technology

Integrated Energy Solutions

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**From:** Stoken, Laura (GOV)  
**Sent:** Monday, January 25, 2016 3:12 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: More suggestions water crisis help.

**From:** C Laymn [<mailto:layman.candi@gmail.com>]  
**Sent:** Monday, January 25, 2016 2:43 PM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** More suggestions water crisis help.

Dear Laura,

I wrote to you regarding drilling wells for Flint to supply ongoing water. After my discussions with my husband, an attorney he wondered if you had considered Eminent Domain to declare an EPA Superfund Site, I didn't think this would work due to people wanting to keep their jobs, but it did give me another unique idea.

Tiny housing is becoming very popular. You could have University of Michigan and GM to help you innovate jobs and new eco-friendly living homes - tiny homes. Some are mobile, some are not. It would help Flint for any foreclosures or blighted areas (I have a banking background and any EPA remediation on lead will really hurt the banks if buyers default). You could generate jobs, rebuild key employers plumbing, and demo anything that is blighted - allowing Flint a unique opportunity to see if something like this would work in larger cities like Detroit, Gary or area in Chicago. You could

turn a negative into a positive while building jobs and helping people in economic distress.

I would add the fine state of Indiana already has lots of experience with RV bases and building on smaller scale - but you could use their know-how and better eco-friendly materials to help mitigate the potential for serious health problems. A huge plus is, if you build the tiny homes to be pulled (like some programs I've seen), then some people may choose to leave Flint, and you'd see just who wanted to remain creating a more sustainable region along with offering an out for those in poverty who would like a fresh start somewhere else if they choose.

Keeping you in my thoughts and prayers.

Candi Layman

419-670-4680

Fort Wayne, Indiana

[layman.candi@gmail.com](mailto:layman.candi@gmail.com)

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**From:** Wisniewski, Wendy (GOV)  
**Sent:** Tuesday, January 26, 2016 8:16 AM  
**To:** Baird, Richard (GOV); Sachs, Tori (GOV)  
**Cc:** Manolakoudis, Virginia (GOV)  
**Subject:** FW: CGI/DCMC Partners

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Jarrold said I should forward this meeting request to you guys for review.

---

**From:** Mike Compagnoni [mailto:compagnoni@midweststrategy.com]  
**Sent:** Monday, January 25, 2016 5:01 PM  
**To:** Wisniewski, Wendy (GOV) <wisniewski@midweststrategy.com>  
**Cc:** Nicole Nystrom <nystrom@midweststrategy.com>  
**Subject:** CGI/DCMC Partners

Wendy,

Thank you for taking the time last week to have a discussion with me regarding disaster management. We spoke with our client CGI and DCMC, and we would like to request a meeting with Jarrod Agen. CGI with DCMC Partners have participated in the disaster recovery of every major US event in the last 10-15 years. CGI works closely with DCMC on disaster recovery. CGI's expertise includes experience with Hurricane Katrina, Superstorm Sandy, and the major flooding in Iowa. As you likely know, CGI also does extensive work with the state to replace the MAIN system with the new Sigma project. CGI also partners with DHHS to provide IT services for Medicaid eligibility and the Healthy Michigan Plan.

The meeting would be with Jon Jasper, Regional Account Executive, and John Stephan, Regional Government Relations Director for CGI. Additionally, Drew Sachs from DCMC Partners would be in attendance, he headed the NJ response to Superstorm Sandy. Nicole Nystrom or myself would be there from Midwest Strategy Group. Additional background on the services CGI provides can be found here: <http://www.cgi.com/sites/default/files/brochures/cgi-natural-disaster-recovery-services-factsheet.pdf>

The meeting topic would be disaster recovery and management assistance. Recognizing how busy Jarrod is, we are flexible on scheduling times for this meeting. Thanks again.

Regards,

Mike

**Mike Compagnoni**  
*Government Relations*

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Midwest Strategy Group  
101 S. Washington Square,  
Suite 620  
Lansing, MI 48933

Telephone: 517.853.0537  
Facsimile: 517.853.0556



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**From:** Cody Beausejour <codybeausejour@gmail.com>  
**Sent:** Tuesday, January 26, 2016 9:33 PM  
**To:** Calley, Brian (GOV); Sachs, Tori (GOV)  
**Subject:** Flint Water Solution Concept Design  
**Attachments:** Concept Design For Distiller.jpg

Dear Lt. Governor Calley, and staff of the Michigan State Executive Branch.

As you can see in the drawing I have provided, Lead contaminated water will be extracted into a distillery machine from the Flint water main. The lead contaminated water is distilled, and clean drinkable water is collected. The clean water will be distributed in the same manor as bottled water is at the distribution centers.

Currently, The state of Michigan and other donors are provided bottled water for residents of flint. The costs to provide enough drinking water are over 50,000\$ a day. In a years time, that is over 18 million dollars a year. (50,000 x 365 = 18,250,000)

Research should be done to estimate the cost of building the water distilleries. I am more than happy to do more independent research on this. I would like to request a meeting with the Governor and, or Lt. Governor, or a member of their staff to discuss further details.

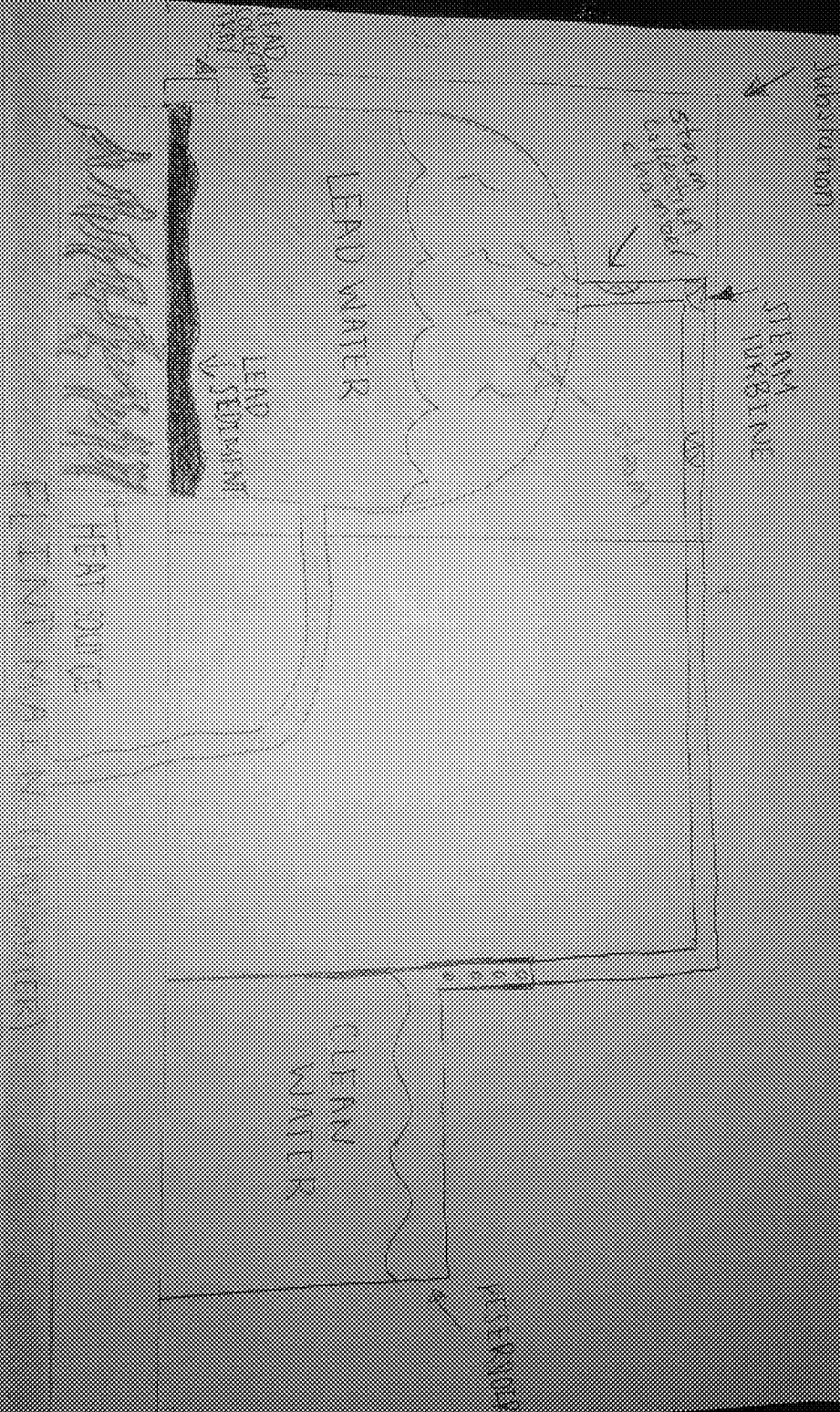
Thank you for reading, Cody Micheal Beausejour.

Recipients:

Lt. Governor Brian Calley ([calleyb11@@michigan.gov](mailto:calleyb11@@michigan.gov))  
External Affairs Advisor, Ms. Tori Sachs ([SachsT@michigan.gov](mailto:SachsT@michigan.gov))



# Concept Design



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**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 11:09 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: RDNs fight lead with nutrition  
**Attachments:** MSUE\_Fight\_Lead\_With\_Nutrition[9].pdf

Should this info go to MDHHS?

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**From:** Calley, Brian (GOV)  
**Sent:** Tuesday, January 26, 2016 11:08 AM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** FW: RDNs fight lead with nutrition

**From:** Bethany Thayer [<mailto:bethanythayerrd@gmail.com>]  
**Sent:** Sunday, January 24, 2016 3:33 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Subject:** RDNs fight lead with nutrition

Dear Lt Governor Calley,

During the January 19, 2016 State of the State address, Governor Snyder discussed a number of recommendations that needed to be implemented in order to address the water crisis in the City of Flint. One recommendation was the importance of nutrition education to the children and adolescents exposed to lead based water.

The **Michigan Academy of Nutrition and Dietetics**, a professional organization of over 2,000 Registered Dietitian Nutritionists (RDN), appreciated the governor's recognition that proper nutrition guidance for those exposed to lead is vital to protect the health and well being of the children and adolescents in Flint. The proper food and nutrients that are consumed can assist in limiting the ill effects to children and adolescents who have been exposed to lead. Exposure to even low levels of lead over time impacts a child's development, resulting in learning and behavior problems.

We are especially proud of our members in the Flint area who are currently working to improve the health of those children and adolescents. Those RDN's and other nutrition professionals in WIC, the Michigan State University Extension and the health department are assuring that those at risk receive the evidence based nutritional guidance to consume nutrient-rich, well-balanced meals and snacks. Other RDN's at local hospitals and health systems are also available as needed and are valuable resources in assisting parents, caregivers, children and adolescents who are in need of fresh and healthy foods.

If you are aware of any Flint residents in need of nutrition resources, meal and snack planning, nutrition assessment and medical nutrition therapy in the treatment of adverse lead exposure, please contact the Michigan Academy of Nutrition and Dietetics office at 586-774-7747 or via e-mail: [mda.execdir@sbcglobal.net](mailto:mda.execdir@sbcglobal.net). Our Executive Director will provide you with the name and contact information of nutrition professionals in your district who can assist you.

For your reference and distribution, we have attached a handout entitled "Fight Lead With Nutrition" that is currently being provided to a number of Flint residents. Please feel free to distribute to those in your district who are affected by this ongoing crisis.

In good health,

Bethany Thayer, MS, RDN, FAND

President, Michigan Academy of Nutrition and Dietetics

[www.eatrightmich.org](http://www.eatrightmich.org)

# FIGHT LEAD WITH NUTRITION

The foods we prepare and serve to our families can help limit the effects of our kids' exposure to lead! Three steps you can take in choosing and preparing food can make a difference:

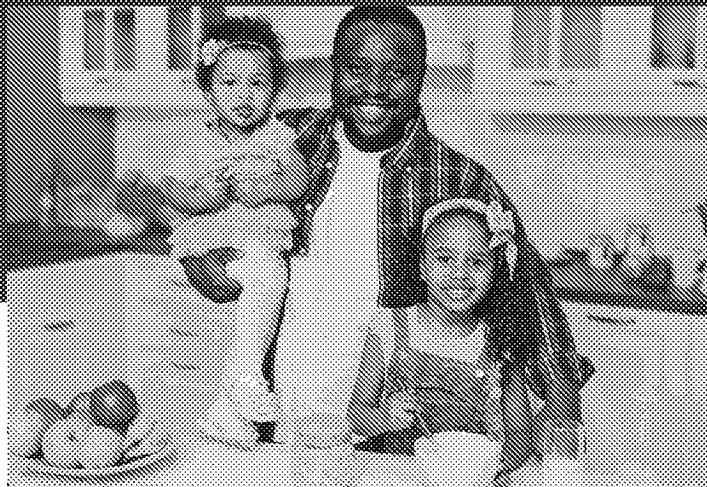
1. When preparing food, be sure to wash and cook it with filtered water.
2. Serve your kids small, healthy snacks between meals.
3. Serve foods that are high in a few really important nutrients: **iron, calcium and vitamin C!**



## LEAD FACTS

Lead isn't good for anyone's health and is especially bad for small children. Keep your family lead-safe by avoiding contact with it. If you live in the city of Flint, or get water from the city's water system, be sure to use an NSF-certified filter for drinking, cooking and mixing baby formula. Make sure to change the filter cartridge by the date printed on the package. Remember that you and your children can also be exposed to lead from old paint, dust, dirt, pottery, make-up, toys and some home remedies.

If you have any concerns about lead or your child's diet, talk with your doctor.



## LEAD-FIGHTING NUTRIENTS

### CALCIUM

Calcium keeps your bones strong and the lead out! Calcium-rich foods include:

- \* Milk and milk products, like cheese and yogurt
- \* Green leafy vegetables, such as spinach, kale, and collard greens
- \* Calcium-enriched orange juice
- \* Tofu
- \* Canned salmon and sardines (both with the bones in)

### IRON

Iron keeps too much lead from getting into your body. Foods high in iron include:

- \* Lean red meats, fish (tuna and salmon) and chicken
- \* Green leafy vegetables, such as spinach, kale and collard greens
- \* Iron-fortified cereal, bread and pasta
- \* Dried fruit, such as raisins and prunes
- \* Beans

### VITAMIN C

Vitamin C works with iron to keep too much lead from getting into your body. Good sources of vitamin C include:

- \* Citrus fruits, like oranges and grapefruit and their juices
- \* Tomatoes and tomato juice
- \* Peppers
- \* Other fruits like kiwi, strawberries and melons



## LEAD RESOURCES

- \* Genesee County Health Department Lead Program: [www.gchd.us](http://www.gchd.us); phone: 810-257-3833
- \* Michigan Department of Environmental Quality (DEQ): [www.mi.gov/FlintWater](http://www.mi.gov/FlintWater)
- \* Michigan Department of Health and Human Services (DHHS) Childhood Lead Poisoning Prevention Program: [www.michigan.gov/lead](http://www.michigan.gov/lead); phone: 888-322-4453
- \* U.S. Centers for Disease Control and Prevention (CDC): [www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)
- \* U.S. Environmental Protection Agency (EPA): [www.epa.gov/lead](http://www.epa.gov/lead)

## WHERE TO GET HELP

### Food Assistance in Genesee County

#### Commodities Food Program

This supplemental food program is designed to help low-income pregnant or breastfeeding women, new mothers up to one year after birth, infants, children up to age 6, and people aged 60 and up. Food is provided once a month. Call 810-789-3746 or 810-789-4409 for details.

#### Double Up Food Bucks (DUFEB)

The DUFEB program matches your SNAP benefits when you buy Michigan-grown fruits and vegetables. For example, if you buy \$10 worth of Michigan produce, you'll get an extra \$10 to buy more fruits and veggies!

You can use this program at:

- \* Flint Farmer's Market, 300 East 1st Street, Flint, phone 810-232-1399, open year round
- \* Landmark Food Center (two locations) 206 West Pierson Road, Flint, phone 810-789-7311, OR 4644 Fenton Road, Flint, phone 810-238-2972, call to check dates and hours for both locations.

#### The Emergency Food Assistance Program (TEFAP)

TEFAP provides healthy foods to qualified families and individuals once every 4 months. Call GCCARD at 810-789-3746 or 810-789-4409 for details.

#### Food Bank of Eastern Michigan

The Food Bank of Eastern Michigan offers many food assistance programs. Call 810-239-4441 for details.

#### Supplemental Nutrition Assistance Program (SNAP)

The SNAP program (formerly called *food stamps*) provides low-income

residents with money to purchase food, including:

- \* Fruits and vegetables
- \* Breads and cereals
- \* Dairy, meat, fish and poultry

You're also allowed to buy seeds and food-producing plants with your SNAP benefits to grow your own food. Apply for SNAP at [www.mibridges.michigan.gov](http://www.mibridges.michigan.gov) or call the Genesee County Department of Health and Human Services (DHHS) at 810-760-2200.

#### WIC (Women, Infants & Children)

The WIC program supplies extra food for low-income pregnant or breastfeeding mothers, infants and children up to 5 years old who are at nutritional risk. Foods provided through WIC include:

- \* Infant formula and iron-fortified cereals
- \* Fruits and vegetables rich in iron, calcium and vitamin C
- \* Whole grain bread and cereals
- \* Eggs, milk, cheese and yogurt

To apply for WIC, call 800-262-4784 (toll-free) or 810-237-4537.

#### WIC-Project Fresh

If you receive WIC benefits, you're eligible to receive Project Fresh coupons to buy locally grown fruits

and veggies! This program runs from June 1 through October 31 each year. For more information contact Genesee County WIC at 810-237-4537 or MSU Extension at 810-244-8500.

### Additional Genesee County Resources

#### 211

- \* Service connects Genesee County residents to community resources including food, transportation, education and health care
- \* Connects residents to sources of water filters and replacement cartridges
- \* Locally funded by United Way Genesee County.
- \* Phone 211
- \* Web: [www.211.org](http://www.211.org)

#### Flint Water Department

- \* Offers free or low-cost water testing
- \* Phone 810-787-6537

#### Genesee County Community Action Resource Department (GCCARD)

- \* Offers free water filters
- \* Phone 810-789-3746 or 810-789-4409

#### Michigan State University Extension

- \* Offers free nutrition education classes
- \* Soil testing for lead
- \* Phone 810-244-8500

### Sources

- Iron Deficiency Anemia Prevention: Diseases and Conditions*. Mayo Clinic. (2014). Retrieved from <http://www.mayoclinic.org/diseases-conditions/iron-deficiency-anemia/basics/prevention/con-20019327>
- Lead and a Healthy Diet: What You Can Do to Protect Your Child* [EPA-747-F01-004]. U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. (2001). Retrieved from <http://www2.epa.gov/sites/production/files/documents/nutrition.pdf>
- Learn About Lead* [overview and fact sheets]. U.S. Environmental Protection Agency. (2015). Retrieved from <http://www.epa.gov/lead/learn-about-lead>
- Nutrition and Lead Poisoning Prevention*. Nebraska Department of Health and Human Services. (2011). Retrieved from <http://dhhs.ne.gov/publichealth/Pages/LeadNutrition.aspx>
- Soil Lead: Testing, Interpretation, and Recommendations*. University of Massachusetts Amherst, Soil and Plant Tissue Testing Laboratory. (n.d.). Retrieved from <https://soiltest.umass.edu/fact-sheets/soil-lead-testing-interpretation-recommendations>

### Acknowledgments

These materials were partially funded by the United States Department of Agriculture (USDA) Supplemental Nutrition Assistance Program Education (SNAP-Ed) by way of Michigan State University Extension and also partially by Hurley Children's Hospital.

Produced by ANR Communications for MSU Extension (<http://msue.anr.msu.edu/>).

MICHIGAN STATE UNIVERSITY | Extension



HURLEY  
CHILDREN'S  
HOSPITAL



# FIGHT LEAD WITH NUTRITION

The foods we prepare and serve to our families can help limit the effects of our kids' exposure to lead! Three steps you can take in choosing and preparing food can make a difference:

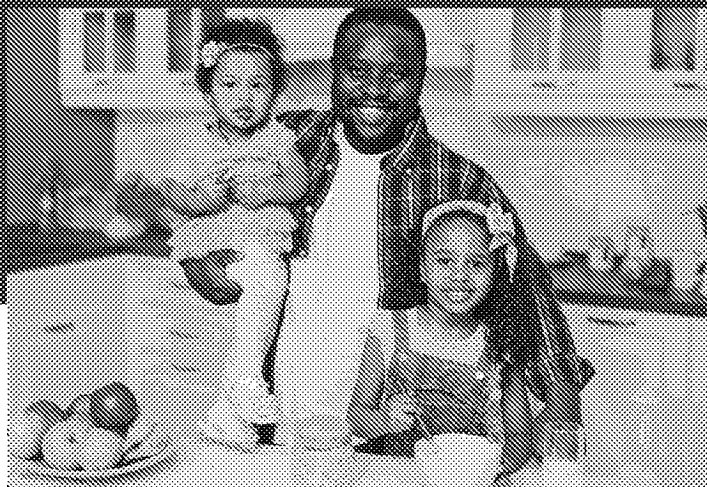
1. When preparing food, be sure to wash and cook it with filtered water.
2. Serve your kids small, healthy snacks between meals.
3. Serve foods that are high in a few really important nutrients: **iron, calcium and vitamin C!**



## LEAD FACTS

Lead isn't good for anyone's health and is especially bad for small children. Keep your family lead-safe by avoiding contact with it. If you live in the city of Flint, or get water from the city's water system, be sure to use an NSF-certified filter for drinking, cooking and mixing baby formula. Make sure to change the filter cartridge by the date printed on the package. Remember that you and your children can also be exposed to lead from old paint, dust, dirt, pottery, make-up, toys and some home remedies.

If you have any concerns about lead or your child's diet, talk with your doctor.



## LEAD-FIGHTING NUTRIENTS

### CALCIUM

Calcium keeps your bones strong and the lead out! Calcium-rich foods include:

- ♦ Milk and milk products, like cheese and yogurt
- ♦ Green leafy vegetables, such as spinach, kale, and collard greens
- ♦ Calcium-enriched orange juice
- ♦ Tofu
- ♦ Canned salmon and sardines (both with the bones in)

### IRON

Iron keeps too much lead from getting into your body. Foods high in iron include:

- ♦ Lean red meats, fish (tuna and salmon) and chicken
- ♦ Green leafy vegetables, such as spinach, kale and collard greens
- ♦ Iron-fortified cereal, bread and pasta
- ♦ Dried fruit, such as raisins and prunes
- ♦ Beans

### VITAMIN C

Vitamin C works with iron to keep too much lead from getting into your body. Good sources of vitamin C include:

- ♦ Citrus fruits, like oranges and grapefruit and their juices
- ♦ Tomatoes and tomato juice
- ♦ Peppers
- ♦ Other fruits like kiwi, strawberries and melons



## LEAD RESOURCES

- ♦ Genesee County Health Department Lead Program: [www.gchd.us](http://www.gchd.us); phone: 810-257-3833
- ♦ Michigan Department of Environmental Quality (DEQ): [www.mi.gov/FlintWater](http://www.mi.gov/FlintWater)
- ♦ Michigan Department of Health and Human Services (DHHS) Childhood Lead Poisoning Prevention Program: [www.michigan.gov/lead](http://www.michigan.gov/lead); phone: 888-322-4453
- ♦ U.S. Centers for Disease Control and Prevention (CDC): [www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)
- ♦ U.S. Environmental Protection Agency (EPA): [www.epa.gov/lead](http://www.epa.gov/lead)

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- \* Phone 810-789-3746 or 810-789-4409

#### Michigan State University Extension

- \* Offers free nutrition education classes
- \* Soil testing for lead
- \* Phone 810-244-8500

### Sources

- Iron Deficiency Anemia Prevention: Diseases and Conditions*. Mayo Clinic. (2014). Retrieved from <http://www.mayoclinic.org/diseases-conditions/iron-deficiency-anemia/basics/prevention/con-20019327>
- Lead and a Healthy Diet: What You Can Do to Protect Your Child* [EPA-747-F01-004]. U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. (2001). Retrieved from <http://www2.epa.gov/sites/production/files/documents/nutrition.pdf>
- Learn About Lead* [overview and fact sheets]. U.S. Environmental Protection Agency. (2015). Retrieved from <http://www.epa.gov/lead/learn-about-lead>
- Nutrition and Lead Poisoning Prevention*. Nebraska Department of Health and Human Services. (2011). Retrieved from <http://dhhs.ne.gov/publichealth/Pages/LeadNutrition.aspx>
- Soil Lead: Testing, Interpretation, and Recommendations*. University of Massachusetts Amherst, Soil and Plant Tissue Testing Laboratory. (n.d.). Retrieved from <https://soiltest.umass.edu/fact-sheets/soil-lead-testing-interpretation-recommendations>

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Produced by ANR Communications for MSU Extension (<http://msue.anr.msu.edu/>).

MICHIGAN STATE UNIVERSITY | Extension



HURLEY  
CHILDREN'S  
HOSPITAL

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**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 4:00 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company

**From:** Chase Bonhag [<mailto:cbonhag@illinoisventures.com>]  
**Sent:** Wednesday, January 27, 2016 3:54 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Subject:** Assisting Flint Michigan with Lead in Water Crisis

**ANDalyze (Champaign, IL) has an innovative product solution for testing drinking water for lead that can dramatically reduce the time and effort in addressing the Flint, Michigan water quality issue.**

Dear Governor Snyder,

I appreciate the quick response from your office, clearly your office is working vigorously to find a solution to the crisis in Flint. I'm a Michigan resident from Traverse City working for a Venture Capital firm, IllinoisVENTURES, in Champaign, IL. One of our portfolio companies, ANDalyze, has a technology that can dramatically reduce the time and effort in addressing the Flint water quality issue.

Rather than talk about what happened, let's focus on solutions.

ANDalyze has a product for the detection and measurement of lead (and other metals) in drinking water, offering quick and accurate on-site testing for lead in water within US EPA regulatory limits.

The ANDalyze products are readily available and were validated by the US EPA in 2014 for their effectiveness to test for lead concentrations in drinking water within the US EPA limit and are being sold around the world for just that purpose. We recently assisted the Hong Kong water authority with this same issue during their emergency last fall. ANDalyze's patented products are a new innovation that came out of the laboratories of the University of Illinois several years ago. The development of the technology has been, and continues to be supported by grants from the State of Illinois, US EPA, US DOE, NSF and NIH.

The advantage of the ANDalyze product is that it is portable, very easy to use, and accurate to below the US EPA regulatory limit and tests within two minutes (very quick compared to sending samples to a lab). This product can give the Flint community and water utility a fast and effective way to test water anywhere (schools, homes, hospitals Etc.) and avoid the delays, complexity and high cost of sending each sample to a central chemistry lab.

I've attached a product flyer and several links below for further information on ANDalyze and its product.

Additionally I would like to note that ANDalyze was awarded a \$1 million grant for the US DOE to commercialize an **automated monitoring system** that can be deployed within the water network to automatically monitor drinking water for the concentration of lead in the water, thus creating continuously available data on the lead levels of the water and is designed to alarm water utility operators if the lead levels are too high. We are looking to pilot test this system in the coming months.

At the bottom of the email you will find product information on ANDalyze for your office to review. I'm reaching out to introduce a product that can truly help you solve the issues in Flint and prevent the chance of an outbreak like this to happen in any other city in Michigan.

I'd appreciate the opportunity to speak about how ANDalyze can support your efforts. You can reach me by email or phone at (231) 590-4955, let's set up a time to speak within the next week to discuss the specifics on how ANDalyze can help you solve Flint's crisis.



I look forward to hearing from you.

Sincerely,

Chase

Chase Bonhag

IllinoisVENTURES

**ANDalyze Inc. (product information)**

- Website: [www.andalyze.com](http://www.andalyze.com)
- Product overview (AND1100): <https://www.youtube.com/watch?v=d2TGoEyCbto>
- Detailed product testing video (AND1100) : [https://www.youtube.com/watch?v=YHHKa2C\\_H4M](https://www.youtube.com/watch?v=YHHKa2C_H4M)
- US EPA testing results: (full 148 pg. report - [US EPA ETV Report](#) )
- US EPA testing results: (Short summary - <http://andalyze.com/wp-content/uploads/ANDalyze-Summary.pdf> )
- Recent US DOE grant award for Automated Lead Monitoring System: [Press release](#)

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**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 4:17 PM  
**To:** Sachs, Tori (GOV)  
**Cc:** Adamczyk, Lynne (GOV)  
**Subject:** FW: VENTRA Group, LLC Overview and Request to Meet

Sending your way Tori. This also went to Rich, Harvey, and Steve Arwood....

Lynne- for your process as well

---

**From:** George Jackson [<mailto:george@ventrailc.com>]  
**Sent:** Wednesday, January 27, 2016 4:07 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
**Cc:** Baird, Richard (GOV) <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>; Steudle, Betsy (MDOT) <[SteudleB@michigan.gov](mailto:SteudleB@michigan.gov)>; Arwood, Steve (MEDC) <[arwoods1@michigan.org](mailto:arwoods1@michigan.org)>; Hollins, Harvey (GOV) <[hollinsh@michigan.gov](mailto:hollinsh@michigan.gov)>  
**Subject:** VENTRA Group, LLC Overview and Request to Meet

Dear Governor Snyder,

Please see the attached overview letter, which provides a description of my new company and partners, and the services we can provide to the State of Michigan as it relates to its real estate development needs.

Sincerely,

George W. Jackson, Jr.

President

---

**From:** Ackerman, Darin (GOV)  
**Sent:** Wednesday, January 27, 2016 4:58 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint

T-Rex,

Who should I funnel this type of stuff to? If his credentials are as outlined below and he's willing to help on a volunteer basis, someone should at least touch base with him.

Thanks,

Darin Ackerman, Deputy Director  
Legislative Affairs Division  
Office of Governor Snyder  
State Capitol  
Lansing, MI 48913  
Phone: (517) 241-3950

---

**From:** Derek Sova [<mailto:Dsova@senate.michigan.gov>]  
**Sent:** Friday, January 22, 2016 2:55 PM  
**To:** Ackerman, Darin (GOV) <[ackermamd3@michigan.gov](mailto:ackermamd3@michigan.gov)>  
**Subject:** Flint

Hi Darin,

We received an email from a constituent of ours who used to be the executive secretary of the old Michigan Toxic Substance Control Commission (transferred to DNR in the 80s) who would like to offer some suggestions for steps moving forward re: Flint. Is there an official effort underway to come up with some long-term solutions to deal with those who may have been affected? Is there a contact person for that effort? He's in his mid-seventies, but he has a PhD in Environmental Epidemiology, he's dealt with public health issues like this before, and he's willing to share his experience. Couldn't hurt to hear to put him in touch with the right people.

Thanks,

**Derek Sova**  
Chief of Staff  
Sen. Tonya Schuitmaker  
517-373-0793  
[dsova@senate.mi.gov](mailto:dsova@senate.mi.gov)

---

**From:** Stoken, Laura (GOV)  
**Sent:** Wednesday, January 27, 2016 6:25 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** company- solution

Eric Brown  
2800 East Central Avenue, Suite 1010  
Phoenix, AZ 85004  
602. 625. 2091  
[Eric.brown@carbonpipe.com](mailto:Eric.brown@carbonpipe.com)

From a personal standpoint we admire your dedication working to solve this tragic public catastrophe. We at Pipe Reconstruction, Inc., would like to offer our help in any way we can. In 1997 the KPFF Advanced Technology & Industrial Group and PRI invented the first application of a carbon fiber / epoxy resin composite to be used in the repair and strengthening of buried piping systems for the nuclear power plant industry. With almost 20 years of testing, approvals and hands-on experience, we have perfected our proprietary Carbon Composite Wrap application for potable and non-potable pressurized and non-pressurized pipe repair and replacement to a standard far above any other carbon fiber composite company.

To put it simply, we can line the inside of the existing lead pipe with a carbon fiber / epoxy composite that is not only suitable for potable water, but will be stronger and last longer than the original pipe. Our hand layer or inversion process has been perfected for pipes ranging in size from 4 to 144 inches in diameter, with pressures as high as 400 psi. PRI has produced, installed or managed the installation of more than 1.6 million square feet of carbon fiber for over 500 reconstruction and repair engagements on pipes around the world.

We would like to present your staff with information on our company and discuss some potential repair options which could begin immediately. Please visit our website at [www.pipereconstruction.com](http://www.pipereconstruction.com) to see examples of our work.

Sincerely,

Eric Brown  
Pipe Reconstruction, Inc.  
602-625-2091  
[eric.brown@carbonpipe.com](mailto:eric.brown@carbonpipe.com)  
[www.pipereconstruction.com](http://www.pipereconstruction.com)  
Laura Stoken  
Manager, Constituent Relations  
Executive Office of the Governor, Rick Snyder  
517.335.7858

---

**From:** GOV Scheduling  
**Sent:** Monday, February 01, 2016 12:13 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint Water Help  
**Attachments:** Cover letter And Resume With Attachments for Gov Snyder 2016.pdf

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**From:** Edward G. Wenz, Jr. [<mailto:edward@leadrenovatortraining.net>]  
**Sent:** Monday, February 01, 2016 10:29 AM  
**To:** GOV Scheduling <[GOVScheduling@michigan.gov](mailto:GOVScheduling@michigan.gov)>  
**Subject:** Flint Water Help

Feb 1, 2016

Governor Rick Snyder -

I am writing this letter and have attached a cover letter and resume for myself for your review. I would like to help you, City of Flint, Flint residents, & the State of Michigan with this Flint Lead Water issue.

I feel with my unique background, knowledge, & skill set I would be helpful in working to find the right resolution to the crisis. I feel with my resume, I will be able to assist in all areas of the work that needs to be done. And come up with and manage the proper implementation of a "fix" to this issue. There are alot of people helping you but I'm not sure with the knowledge that I possess from the construction, lead inspections/risk assessments, water testing, housing rehab, water & sewer infrastructure, and safety needs of the public and workers.

Please feel free to contact me at anytime.

Sincerely,

Ed Wenz

*Edward G. Wenz, Jr.*  
**Contractors Training Institute, LLC**  
**Lead Renovator Training, LLC**  
**CTI - Consulting, Testing, & Inspections, LLC**  
**Michigan Builders Training & Builders Con-Ed**  
248-698-6900 ~ Fax# 248-694-2001  
Construction/ Environmental Consulting & Education

# Edward G. Wenz, Jr.

February 1, 2016

To Governor Rick Snyder:

I am writing in letter to offer my services to help you, the State of Michigan, & the residents of Flint my professional services and background to help with this water situation that has impacted the community.

I am currently an State of Michigan and EPA Trainer for the new RRP Rule, a State of Michigan Trainer for Lead Abatement (Worker, Supervisor, Inspector, & Risk Assessor), State of Michigan Trainer for Asbestos (Supervisor & Inspector), and State of Michigan Trainer for builders / contractors handling pre-lic classes, con-ed, osha, mold, & asbestos awareness. I am the owner of a Michigan Proprietary School for Builders Courses. I also own CTI – Consulting, Testing, & Inspections, which is a firm that inspects home, write rehab specifications, lead lead inspections & lead risk assessments, asbestos surveys, federal programs management, and more.

I previously worked with City of Pontiac Federal Programs as the Federal Programs Construction Manager. I handled many areas for the Federal Programs including, demolition of homes for emergency & scheduled programs, water/sewer/electrical/gas disconnects with a survey of all to document for future use, homeowner rehab, NSP rehab, board up, lawn mowing & debris clean ups, spec writing, training of contractors for the city, RFP's for many programs, and much more.

I have previously worked for Macomb County Planning Dept where I was a Rehabilitation Specialist with the Macomb County Rehabilitation Program, and I feel that my background was well suited for this position. In my position as a Rehabilitation Specialist / Building Inspector, I inspected homes for code violations, HUD HQS, and deficiencies in the building, plumbing, hvac, and electrical trades. I also write up specifications and bid out new rehabilitation projects, as well as monitor, inspect work upon completion, and process billings for housing rehabilitation projects. I wrote the county rehab contractor manual and designed and wrote a new inspection report, along with making it a computer application.

In addition to my experience a contractor, trainer, and with Pontiac & Macomb County, I have a residential builder's license, I hold licenses with the State of Michigan as a Lead Supervisor and Lead Inspector / Risk Assessor, Asbestos Supervisor Contractor, Asbestos Inspector, Mold Remediation Specialist, Certified Indoor Air Quality Tech, and I have owned my own construction firm since 1995. The construction company I owned had 50 employees contracting work in new construction, remodeling, additions, fire restoration, demolition, & commercial contracting. My firm had contracted installation programs for Home Depot and Lowe's, along with commercial work in retail, commercial, and institutional buildings in various counties. I previously sat on the Zoning Board of Appeals for St. Clair Shores, and I also have worked with local attorneys as an expert witness for homeowners with legal matters regarding construction.

I would consider it a great opportunity to work for / with the State with my skills and unique background that very few have with the well rounded knowledge of all aspects of the issues and how to fix, bid, & manage for the Flint Water issue. I would like to provide any other details as to my background & knowledge and/or the fix as I see it at your request. I will make time to meet with you anytime.

Thank you for taking the time to consider my resume and application to help. I look forward to speaking with you or your department.

#### References:

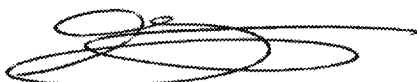
Kathleen "Casey" Hines – HUD NSP Rep = 734-732-3575

Jill Robinson – Michigan Land Bank Rep = 517-242-6944

Peter Agnello – Varsity Floors = 586-929-0680

- More available upon request

Thank you for your time and consideration,



Edward G. Wenz, Jr.  
Enclosure – Resume

**EMPLOYMENT OBJECTIVE:**

To utilize my past experience & knowledge to gain personal growth & advancement in the construction field.

**WORK EXPERIENCE:**

2010 – Present **Contractors Training Institute, LLC**

**Lead Renovator Training, LLC ~ Member / Trainer / Instructor**

**Michigan Builders Training, LLC & Builders Con-Ed, LLC**

**CTI – Consulting, Testing, & Inspections, LLC**

- Trainer for EPA Certified Renovator course, Mold Remediation, OSHA Safety, Asbestos
- Trainer of Lead Abatement Supervisor, Lead Inspector, Risk Assessor, Worker
- Trainer / Instructor for Michigan 60 Hr Builders Pre-Licensure Class & Builders Con-Ed
- Trainer for Asbestos Supervisor Contractor & Inspector Courses
- Built Online School for Contractor Training, Along with specialty websites & phone apps
- CTI-Consulting, Testing, & Inspections division of firm handling lead, asbestos, mold, & project management
  - Work for Macomb County Rehab program as rehab specialist, spec write, inspector
  - Work for Habitat For Humanity Macomb & Detroit as spec writer, rehab specialist, inspector, & lead inspector/lead risk assessor

1994 – Present **Winner Investment, Inc. ~ Owner**

- Established a property management company that currently owns and manages six (6) residential rental units throughout Macomb County. This firm owned and managed over 38 properties including commercials and residential apartments in previous years.
- Also, DBA Michigan Inspection Consultants, LLC; inspection & consulting services

May 2011 – Feb 2012 **City of Pontiac Federal Programs**

- Construction Manager / Rehab Specialist for Federal Programs HUD Grants & NSP
- Inspections of residential homes for code and write specification for all work, HOME Funds Implemented Programs for: Emergency Board-Up, Lawn ordinance mowing, Dumping clean-ups,
- Coordinated restart of NSP program for City to meet all HUD requirements, completed work that was on hold
- Demolition Program for Emergency & Scheduled demos, Coordinated all disconnects for water/sewer/electrical/gas for Michigan Land Bank NSP2 & CDBG. Along with surveying all water & sewer lines for mapping utilities for future use.

2006 – 2010 **Mini Dumpsters, LLC ~ Member**

- Established a waste & recycling firm = SOLD Firm
- Company was established with one dump trailer, when sold the business had 30 trailers, 18 roll off boxes, 3 trucks, 2 frontload trash trucks with revenue of \$500K per year

2003 – 2008 **~ Macomb County Rehabilitation Specialist I**  
**Dept. of Planning & Economic Development**

- Performed functions of Rehabilitation Specialist / Building Inspector
- Managed rehabs for Lead Inspection & Lead Risk Assessments on work for county.
- Designed and wrote county housing inspection report
- Wrote county rehab program contractor manual
- Trained contractors in work practices, lead work, & processes

1998 – Present **At Home Services, LLC ~ Owner**

- Established general contracting company for residential work. *Inactive.*

2003 – 2007 **RW Builders, LLC ~ Member**

- Established building & development partnership firm, building and renovating homes in Macomb, Oakland, & Wayne Counties. Company was dissolved as of December 2007.
- Built new homes as in fill lots in various cities
- Rehabbed homes in various city for flips

## 1996 – 2003      **Winner Properties, Inc. ~ Owner**

- Established a full service construction company, diversifying in new home construction, commercial build outs, gymnasium wood floor installs, rehabilitation work, design & build, home inspections, insurance reconstruction, lead paint and asbestos abatement. Trained employees' in work practices, install techniques, lead safe work practices, work safety training, fire safety, hazard communication plan, respiratory program, etc...
- Winner Properties was the largest Home depot installation firm in Michigan and surrounding states handling 33 stores in Michigan for door installation program. Our firm also wrote the Anderson Window install program for Home Depot.
- Winner Properties also worked for Home Depots EXPO Design Center Stores. Our firm handled 3 stores for installation of kitchens, bathrooms, tile, stone, complete remodel work and design build work.
- Winner Properties was the largest Lowes installation firm handling 6 stores in Metro Detroit market. Our firm handled the door installation program for all 6 stores, handled the plumbing install program for 3 stores, and handled installation of tile & cabinets for 3 stores.

## **Other Work Experience:**

- Licensed Associate Realtor
- Truck driver to waste hauling firm - Went on to open my own business
- Owner of Towing & Recovery Service – Built & Established Company & then Sold company
- Owner of Spring & Suspension Shop – Built & Established Company & then Sold company
- Machine Repair Technician for Expert Machine Repair – Went out to open my own business

## **SKILLS, LICENSES, CERTIFICATIONS:**

- Licensed Builder
- Certified Lead Abatement Supervisor
- Certified Lead Inspector & Lead Risk Assessor
- Certified Licensed Asbestos Supervisor Contractor
- Certified Licensed Asbestos Inspector
- State of Michigan Certified Lead Trainer (Worker, Supervisor, Inspector, Risk Assessor)
- State of Michigan Certified Asbestos Trainer (Supervisor / Contractor & Inspector)
- US Environmental Protection Agency EPA RRP Trainer
- State of Michigan Certified Builders Pre-License Trainer
- State of Michigan Certified Real Estate Continuing Education Trainer
- State of Michigan Certified Insurance Adjuster Continuing Education Trainer
- Trainer in OSHA, Mold, Lead, Builders Initial & Con-Ed Classes, Asbestos
- Lifetime Approval By State of Michigan as Trainer for State Building Officials, Inspectors, & Plan Reviewers
- OSHA 10 Hour Trained
- Certified Mold Remediation Specialist
- Certified Home Inspector
- Former Realtor
- Driver License = CDL-A – endorsements C, CY, NT

## **VOLUNTEER AND COMMUNITY INVOLVEMENT:**

- Michigan HBA Remodelers Council = Presenter / Trainer
- Michigan Historical Preservation Network = Trainer / Consultant
- Member of St. Clair Shores Zoning Board of Appeals = *Previous*
- Compassionate Ministries / Building Construction Advisor = *Previous*
- Habitat For Humanity Macomb – Construction Supervisor = *Previous*
- Housing Opportunities for Macomb = *Previous*



## **Federal Programs Experience in HUD / NSP Work**

### **Macomb County Rehab Program – Rehabilitation Specialist**

- Inspect homes for rehabilitation program: building, plumbing, hvac, & electrical
- Inspect homes for both CDBG & HOME Funds for Code & HQS Standards
- Wrote the County Housing Rehabilitation Contractors Manual
- Updated the County Housing Rehab Manual
- SHPO Historical Section 1106 Clearances
- Environmental Reviews
- Wrote Specifications for work on homes – bring to code & emergency repairs
- Wrote specifications for lead abatement work / designed jobs
- Wrote estimates for all specifications on projects
- Ordered Lead Inspection & Risk Assessments as needed for projects
- Assessed projects for Lead Hazards and wrote specification for such work
- Met with homeowner to go thru work specifications and answered questions
- Inspected progress of work & final inspection of all work to meet specifications
- Completed final work on all homes and processed payments
- Wrote a complete rehab specification guide and put it into place for the County
- Designed a rehab tracking process and write up program for the County
- Ran projects for over 50 homes per year
- Projects ranged from rehabilitation, demo, and new build
- NSP Program: Worked to get basic acquisition and rehab outline established

### **City of Pontiac Federal Programs – Construction Manager**

- Wrote City Housing Rehabilitation Contractor Manual
- Updated / Revised the City Housing Rehab Manual
- Reviewed and worked for updating the Program Procurement Manual
- Wrote a complete rehab specification guide and put it into place for the City
- Designed a rehab tracking process and write up program for the City
- Organized and managed utility disconnects for demolition work. NSP & CDBG for City & NSP2 for MI Land Bank
- Worked with city on all water & sewer disconnects to be located and documented
- Organized and administered RFP's for: Rehab Contractors, Demo Contractors, NSP Developers, Realtor Services, Appraiser Services, Board Up Contractors, Lawn & Debris Clean-Up Contractors
- Bid Projects: Emergency Board Up Program, Lawn Mowing & Debris Clean Up Program, Rehab Program, Emergency Demo Program, 2012 Winter Demo Program, Asbestos Inspections, Lead Inspection & Risk Assessment Services
- Signed contract for Board Up Program & Managed over 350+ homes for board up
- Signed contract for Lawn & Debris Clean Up with 84 homes mowed, 1600 yards of debris removed
- Signed contract for Asbestos Inspections and administered over 200 sites
- Signed contract for Lead Inspection & Risk Assessment Services
- Inspected and wrote specs for 14 homes to satisfy HUD findings as a requirement to meet repairs for HUD
- Signed contracts for rehabilitation projects to repair homes required by HUD to clear findings – 14 sites
- Wrote Specs & Bid Emergency Demo Program; signed contracts with 6 contractors for work – demolished 20 homes in 10 days, completed work of 60 homes in 30 days
- Wrote Specs for 2012 Winter Demo Program – Pre-Bid Meeting held on 1/20 with 26 contractors, project is 150+
- Wrote / Revised Energy Upgrade specification for Lighthouse Path Bldg- Commercial Site
- Helped manage all SHPO applications for Historical Section 1106 Clearances on: Rehab & Demo work
- Worked with SHPO to add additional products to be listed as approved materials by State Architect to help have better specifications for rehab of homes.

- NSP Program:
  - Administration for: Acquisition Rehab, Demo, New Build
  - Managed & Signed for sale of properties for City to Developer
  - Administered & Managed all utility retirements / disconnect for Pontiac & Michigan land Bank
  - Revised specifications for NSP Developers to establish higher specifications = expectations
  - Worked to modify and help contractors get NSP 1 Program work done as the system was on hold
  - NSP Developers were guided to get projects back on track and now have done 19 homes in 6 months
  - Pontiac was on NSP slow spending list and now Pontiac is one of S/E Michigan top producers for HUD
  - City of Pontiac became top producing NSP Community in the last 6 months since Ed managed construction processes
  - Managed a huge Historical case and got clearance from SHPO in 30 minutes – 224 Ottawa, Pontiac
  - Managed Historical Sec 1106 Clearances for homes on NSP Program
  - Organized and managed RFP for Rehab Contractors for NSP 3 Program
  - Organized and managed RFP for Realtor Services for NSP Program
  - Wrote and managed RFP for Appraisal Services for NSP Program & sale of CDBG Property
  - Wrote & Bid out Specs for Alarm Systems on all NSP homes – Signed deal for developers
  
- CDBG & HOME Funds
  - Inspect homes for both CDBG, HOME Funds – Code & HQS Standards
  - SHPO Historical Section 1106 Clearances
  - Wrote specifications for work on homes – bring to code & emergency repairs
  - Wrote estimates for all specifications on projects
  - Ordered Lead Inspection & Risk Assessments as needed for projects
  - Met with homeowner to go thru work specifications answered questions
  - Inspected progress for work & final inspection of all work to meet specifications
  - Completed final work on all homes and processed payments

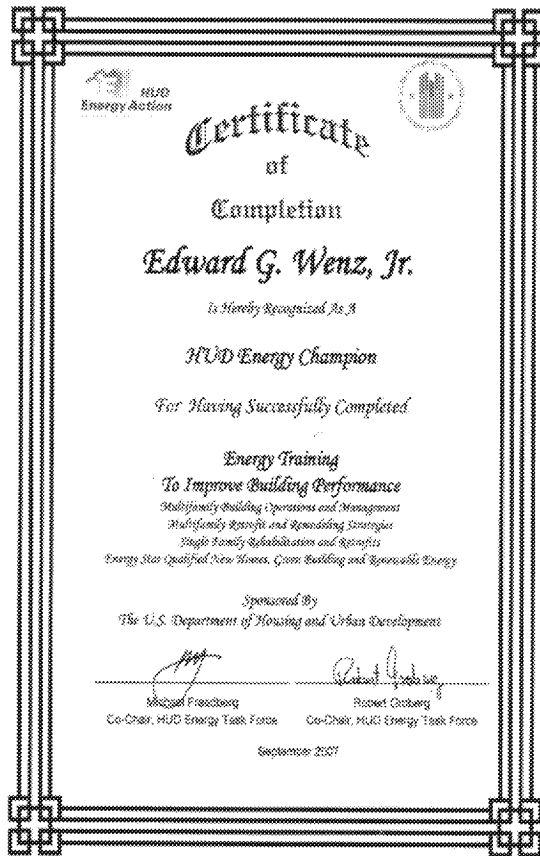
## Attachments – A

- Copy of Michigan Builders License

<small>ROCK SWYDER GOVERNOR</small>	<b>STATE OF MICHIGAN</b>	<b>L245595</b>
<b>DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS</b>		
<b>CORPORATIONS, SECURITIES &amp; COMMERCIAL LICENSING BUREAU</b>		
<b>RESIDENTIAL BUILDER LICENSE</b>		
EDWARD GILBERT WENZ, JR 8756 TRENTON DR WHITE LAKE MI 48386		
<small>PERMANENT I.D. NO. 2101186904</small>	<small>EXPIRATION DATE 05/31/2017</small>	<small>AUSTY NO 2801332</small>
<small>THIS DOCUMENT IS ONLY VALID UNDER THE LAWS OF THE STATE OF MICHIGAN</small>		

<small>ROCK SWYDER GOVERNOR</small>	<b>STATE OF MICHIGAN</b>	<b>L231721</b>
<b>DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS</b>		
<b>CORPORATIONS, SECURITIES &amp; COMMERCIAL LICENSING BUREAU</b>		
<b>RESIDENTIAL BUILDER COMPANY LICENSE</b>		
- O. O. - EDWARD GILBERT WENZ, JR      INDV#: 2101186904		
WINNER INVESTMENT INC DBA/ MICHIGAN INSPECTION CONSULTANTS 8756 TRENTON DR WHITE LAKE MI 48386		
<small>PERMANENT I.D. NO. 2102185620</small>	<small>EXPIRATION DATE 05/31/2017</small>	<small>AUSTY NO 2789605</small>
<small>THIS DOCUMENT IS ONLY VALID UNDER THE LAWS OF THE STATE OF MICHIGAN</small>		

## Attachment ~ B: Additional Training Certificates



**CUSTOMER TRAINING**

**Radiation Safety and Operation of Niton XRF Analyzers**

This is to certify that  
**Edward Wenz**  
has successfully completed the one day Thermo Fisher Scientific Niton Analyzer Manufacturer's Training Course. The topics of this course include radiation safety, monitoring, device operation, and machine maintenance of the Niton XRF Analyzer.

(CIH's - The ABIH Awards 1 CM point, approval # 08-354)

Course date: May 5, 2011  
Location: Romulus, MI  
Certificate Number: 154700380000017rVh0

*Sophie Ling*  
Sophie Ling  
Radiation Safety Training Coordinator

*James Blute*  
James Blute, CHP  
Manager of Health and Safety

Thermo SCIENTIFIC



## Attachment ~ B: Additional Training Certificates



### EMSL ANALYTICAL, INC.

Certifies that

**Edward Wenz**

Has Completed Training In

**Mold, Indoor Air Quality and IH Sampling**

EMSL Certificate No. 70016695

Course Date: 98/11/2015

Granted: 98/11/2015

Sponsored by:

EMSL Analytical, Inc.  
200 Route 130 North  
Cinnaminson, NJ 08077  
Phone: (800) 220-3675  
Fax: (856) 786-5875  
[www.emsl.com](http://www.emsl.com)

**Jason Dobranic, Ph.D.**

Vice President of Microbiology and Life Sciences

Environmental, Mold, Bacteria, IAQ, Asbestos, Lead, Forensic and Materials Testing Since 1981



### EMSL ANALYTICAL, INC.

#### Credits and Continuing Education

Indoor Air Quality/Industrial Hygiene Workshop

on

8/27/15

ABIH-Compliant  
ACAC - 8.0 Credits  
BOMI - 8.0 Credits  
FL DBPR - 7 Credits  
HCRC - 1.0 Credit  
Inter NACHI - 8.0 Credits  
NAHI - 8.0 Credits  
ASHI - 8.5 Credits

CRBOH - 1 maintenance point  
NYS Dept of State Home Inspectors  
CRBOH - 1 MP  
NJ Site Remediation Professional Licensing  
Board - 4 TCEs  
NEHA - 6.5 CEC's  
TN Home Inspector Licensing Board - 8 hours

CAHPI  
OAH - 7 CEUs  
CAHPI/BC - 7 MRCs  
CAHPI Alberta - 7 MRCs  
Approved by Florida State  
DBPR 7 Credit Hours

Certificate # 70016695

Issued to: Edward Wenz

Environmental, Mold, Bacteria, IAQ, Asbestos, Lead, Forensic and Materials Testing Since 1981

## Attachment ~ C: Additional Certificates

United States Environmental Protection Agency

This is to certify that

Lead Renovator Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices under 40 CFR Part 402.101 in the following description:

Renovator: Professional Lead-based Paint

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: October 27, 2015

NOT EPCB-100000-1-010  
Accreditation # OCT 14 2015  
Issued On

*Tony Bentley, acting for*  
State Risk, Chief  
Chemicals Management Branch

United States Environmental Protection Agency

This is to certify that

Lead Renovator Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices under 40 CFR Part 402.101 in the following description:

Renovator: Professional Lead-based Paint

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: JUL 11, 2015

NOT EPCB-100000-1-010  
Accreditation # JUL 07 2015  
Issued On

*Maria Klemm*  
State Risk, Chief  
Chemicals Management Branch

This is to attest that

has satisfactorily met the requirements of the Michigan Lead Abatement Act of 1996, and is hereby accredited as a

**Lead Renovator Training**

LEAD TRAINING COURSE PROVIDER

TCP number T-0049

This accreditation entitles the named persons to the rights and privileges afforded by the Act, as well as the authority to offer and provide the following training courses leading to certification of individuals engaged in regulated lead-based paint activities in the State of Michigan until August 31, 2016

Worker Initial	Worker Refresher	Supervision Initial	Supervision Refresher	Inspector Initial
Inspector Refresher	Risk Assessor Initial	Risk Assessor Refresher		

**MDHHS** Michigan Department of Health and Human Services

*Michael J. Brown*  
Manager, EPH

August 21, 2015  
Date

Authority: P.A. 300 of 1993, as amended

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
CORPORATIONS, SECURITIES & COMMERCIAL LICENSING BUREAU

L263570

PROPRIETARY SCHOOL  
LICENSE

MICHIGAN BUILDERS TRAINING, LLC  
2525 AVON INDUSTRIAL DRIVE  
ROCHESTER HILLS MI 48309

PCB-000001-1-010  
8604000877

10/15/2015  
06/30/2015

2015-08  
2309466

THIS DOCUMENT IS NOT A MODEL  
DO NOT REPRODUCE OR DISTRIBUTE

Sponsor Number: 744307  
Issue Date: 11/25/2015  
Expiration Date: 12/31/2015

State of Michigan  
Department of Licensing and Regulatory Affairs

Michigan Builders Training, LLC

has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1993, as amended, and Section 206 of Title II of the Toxic Substances Control Act to provide the following courses:

Contractor/Supervisor Initial\* Inspector Refresher\*  
Contractor/Supervisor Refresher\*

1312

United States Environmental Protection Agency

This is to certify that

Lead Renovator Training, LLC

has satisfied the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received accreditation in certain lead-based paint abatement practices under 40 CFR Part 402.101 in the following description:

Renovator: Professional Lead-based Paint

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This accreditation is valid from the date of issuance and expires: October 27, 2015

NOT EPCB-100000-1-010  
Accreditation # OCT 14 2015  
Issued On

*Tony Bentley, acting for*  
State Risk, Chief  
Chemicals Management Branch

## Attachments – D:

- Copy of Environmental Licenses

Michigan  
Department of  
Community  
Health

**Edward G. Wenz Jr.**  
**Lead Inspector/Risk Assessor**  
**Lead Supervisor**

Cert. number **P-011130**

Annual fee due by **March 31, 2016**

*Appropriate refresher training and exam must be taken to renew this certification before March 31, 2016*

Healthy Homes Section

State of Michigan  
Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Inspector**

**Edward G. Wenz, Jr.**  
8756 Trenton Drive  
White Lake, MI 48386

Accreditation Number **A42527** Expiration Date **04/05/2016** DOB: **01/08/1966**

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1986, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered **114769**

State of Michigan  
Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Contractor/Supervisor**

**Edward G. Wenz, Jr.**  
8756 Trenton Drive  
White Lake, MI 48386

Accreditation Number **A42527** Expiration Date **04/05/2016** DOB: **01/08/1966**

This individual has satisfactorily met or exceeded the requirements of Section 205 of the Toxic Substances Control Act to be accredited in the above discipline.

Accreditation card is not valid if altered **114770**

**OSHA** Occupational Safety and Health Administration

21-004444959

This card acknowledges that the recipient has successfully completed a 10-hour Occupational Safety and Health Training Course in **Construction Safety and Health**

**EDWARD WENZ, JR.**

**Bryan Renaud** 06/12/2013

(Trainer name – print or type) (Course end date)

Michigan Department of Licensing and Regulatory Affairs  
Michigan Occupational Safety and Health Administration  
Consultation Education and Training Division

This is to recognize that

**EDWARD WENZ, JR.**

Has completed a 10-Hour MIOSHA course in **CONSTRUCTION SAFETY AND HEALTH**

**Bryan Renaud** Approval # **AP 147** **6/12/13**  
(Instructor) (Date)

**LARA**

**MIOSHA Training Institute**

**MIOSHA** Macomb Community College

The MIOSHA Training Institute takes pleasure in presenting this **CERTIFICATE OF ATTENDANCE** to

**EDWARD WENZ, JR.**

for your active participation in **MIOSHA Construction 10-Hour Course**

awarding 1 CEU / 10 Contact Hours  
**JUNE 12, 2013**

**PATRICIA DUPRESNE** **BRYAN RENAUD**  
Coordinator, MIOSHA Training Institute Director, MIOSHA Training Institute



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
BUREAU OF CONSTRUCTION CODES  
IRVIN J. POKE  
DIRECTOR

STEVEN H. HILFINGER  
DIRECTOR

April 2, 2012

**\*\*Lifetime Instructor Approval\*\***

Mr. Edward G. Wenz, Jr.  
8756 Trenton Drive  
White Lake, MI 48386

Dear Mr. Wenz:

Your application to renew your Instructor Approval has been processed by the Bureau of Construction Codes.

Pending review by the Construction Code Commission, the Bureau of Construction Codes has been granted permission to renew your approval under the following conditions:

1. Instructor standards as defined in the Rules for Act 54, 1986 are maintained.
2. Approval is granted indefinitely for the following categories: Administration, Communication, Plan Review, and Building (Specialty and Technical specific to lead, asbestos and mold related subjects).
3. The commission may withdraw the approval of an instructor when the approval was issued in error or was issued on the basis of incorrect information or when the instructor is found to be in violation of the rules.

The standards set forth in the rules for Act 54, 1986, state that program providers must "establish permanent records of student activities, including course title, and student attendance." Instructors have the responsibility for certifying attendance records. All participants must attend the entire program to receive credit.

**PLEASE NOTE:** Training programs must be approved by the Bureau of Construction Codes before registrants will receive their credited attendance hours. Before conducting training programs, a completed Education and Training Programs Approval Application (Form BCC-1052) must be submitted and approved by the Bureau of Construction Codes. Our attendance form can be found on our website at [www.michigan.gov](http://www.michigan.gov) under Forms then Building Division.

Instructor Identification Number: 2019

Sincerely,

*Kary L. Dare*

Kary L. Dare  
Building Division

KLD/ld

*Providing for Michigan's Safety in the Built Environment*

LARA is an equal opportunity employer  
Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.  
P.O. BOX 30254 • LANSING, MICHIGAN 48908  
[www.michigan.gov/bcc](http://www.michigan.gov/bcc) • Telephone (517) 241-8302 • Fax (517) 241-9570





RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
LANSING

STEVE ARWOOD  
DIRECTOR

February 15, 2013

Michigan Builders Training, LLC  
Edward G. Wenz Jr.  
2230 Avon Industrial Dr  
Rochester Hills, MI 48309

Dear Mr. Wenz:

RE: **Sponsor #480**

Your application as a sponsor for the 2013-2015 Calendar Years for real estate nondistance-learning continuing education has been approved. This approval begins on February 14, 2013 and expires on December 31, 2015. **The sponsor approval number above is important and must be referenced in ALL correspondence with the Department.** The following course(s) have been approved:

Course Name	Hours	"L" Course Number
Combo Lead, Asbestos, Mold Awareness	4hrs	M1474
OSHA Fall Protection	2hrs	M1475
EPA Certified Lead Renovator	4hrs	M1476
Mold Awareness -- What you should know	2hrs	M1477
OSHA Lead Awareness	2hrs	M1479
Asbestos Awareness	2hrs	M1478

This approval includes Edward Wenz as instructor(s).

A Schedule and Geographic Location of Classes BCS/LRE-004(01/09) must be submitted before you submit your verification of attendance. Sponsors must submit verification of attendance no later than 5 days after the completion of the course, per Rule 604(8).

Electronic filing of your continuing education course attendance roster file must be a tab delimited text file or an excel file that can be exported from any database you have.

You can find the Schedule and Geographic Location of Classes and Verification of Attendance excel spreadsheet on our website at [www.michigan.gov/bctestesting](http://www.michigan.gov/bctestesting) under the forms drop down menu. If you have any questions, please contact me at (517) 241-9231. Thank you for your cooperation.

LARA is an equal opportunity employer/program.  
Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

BUREAU OF COMMERCIAL SERVICES  
P.O. BOX 30018 • LANSING, MICHIGAN 48909  
[www.michigan.gov/lara](http://www.michigan.gov/lara)

FIS 414 (12/11) Department of Insurance and Financial Services

**Certificate Of Registration For A Continuing  
Education Program Of Study**

PSI  
Michigan CE  
3210 E. Tropicana  
Las Vegas, NV 89121

September 18, 2013

MICHIGAN BUILDERS TRAINING, LLC  
EDWARD G WENZ JR  
8756 TRENTON DRIVE  
WHITE LAKE, MI 48386

Edward Wenz:

Pursuant to Section 1204a(1) to 1204c(6) of the Insurance Code of 1956, as amended, MCLA 500.1204a(1) to 500.1204c(6), the Agent Education Advisory Council or its designee has reviewed the course materials, curriculum, and instructor credentials submitted and recommends to the Director's representative that this program of study be registered:

Course Name: **UNDERSTANDING THE HAZARDS OF HOUSING - COMBO LEAD, ASBESTOS, & M**

Program of Study: **Property & Casualty**

Effective Date: **09-18-2013**

Number of Approved Hours: **3**

Provider Number: **0979**

Life/Health **0**

Property/Casualty **3**

Presentation Method: **Classroom**

Course Number: **63228**

National Designation Program: **No**

Expiration Date: **09-18-2015**

By the granting of this Certificate of Registration, the Director's representative approves the recommendation. The Director may, after Notice and Opportunity for a Hearing, withdraw the registration of a program of study, which does not maintain standards as determined by the Director for the protection of the public. Sales/Marketing hours = 0.

If you disagree with our decision, you may appeal by providing 2 copies of the requested information within 30 days of the date of this letter without any additional fees. However, if you appeal our decision, you must return this document and you may not offer this course until a final disposition is granted.

If you need to contact PSI, please email [MIINSURANCE@PSIEXAMS.COM](mailto:MIINSURANCE@PSIEXAMS.COM).

Sincerely,

PSI Continuing Education Unit



Michigan Department of Insurance and Financial Services

DIFS is an equal opportunity employer/program.

Auditory aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

Visit DIFS online at: [www.michigan.gov/difs](http://www.michigan.gov/difs) Phone DIFS toll-free at: 877-999-6442

---

**From:** Stoken, Laura (GOV)  
**Sent:** Monday, February 01, 2016 2:39 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Disaster Recovery Resilience Program

For your determination

---

**From:** Norman Stoerr [<mailto:nstoerr@aidrc.com>]  
**Sent:** Monday, February 01, 2016 2:36 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Cc:** Norman Stoerr <[nstoerr@aidrc.com](mailto:nstoerr@aidrc.com)>  
**Subject:** Disaster Recovery Resilience Program

Good afternoon Lt. Governor Calley,

I'm contacting you to provide you information concerning Adjusters International's Disaster Recovery Resiliency Program.

In 2010, The Department of Homeland Security (DHS) identified resiliency as a national priority. DHS intended to reduce the risk to critical infrastructure, public health and safety by fostering development of preparedness capabilities able to recover from naturally or man-made disasters to the nation's states and cities. Presidential Policy Directives 8 and 21 fully endorse this high level initiative.

Adjusters International (AI) can provide you a Disaster Recovery Resilience Program. Our web-based interoperable, multiple activation program, will assist the state in building a pro-active, readiness, response, recovery, and mitigations program for your state and counties.

AI's program can provide you a detailed risk analysis of the state's resources. Our program will also monitor your resource allocation of personnel, equipment and facilities not only on a daily basis, but also during an emergency situation or activation. The program provides this support using its GIS and real time situational analysis capability. AI's Disaster Recovery Resiliency Program will also guide a municipality, city or county from the initiation of an emergency response, through the closeout of a disaster declaration.

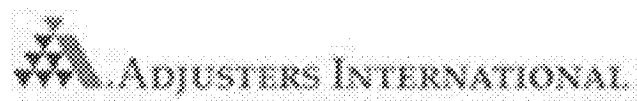
At your convenience, we would like the opportunity to speak with you and or members of your staff to further explain the Disaster Recovery Resilience Program.

Please contact me on the number or e-mail listed below to schedule a GoToMeeting. We will show you some features and further explain the benefits of our program.

Thank you very much sir,

*Norman T. Stoerr  
Disaster Recovery Resiliency Program  
Adjusters International DRC  
125 Wolf Road-Suite 214  
Albany, New York 12205  
Cell: 716-432-9414*

*E-mail: [nstoerr@aidrc.com](mailto:nstoerr@aidrc.com)*



C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

January 29, 2016

Honorable Rick Snyder, Governor Michigan

Honorable Dr. Karen Weaver, Mayor

Honorable Elder Patrick W. Sanders, Pastor New Jerusalem Full Gospel Baptist Church

Greetings,

One of the most forgotten tools in optimizing effective public health strategies is Risk Communications. C. Edwards Concepts Public Health and Development Consulting LLC a nationally recognized leader in comprehensive Public Health consultation is fully qualified and experienced in multiple areas of Risk Communication Disease Intervention and Community Health. Since 2002 we have provided design, development and implementation services for local state and federal governments, non-governmental organizations, and community based organizations, and academic institutions. I am writing in hopes of securing an opportunity to discuss the provision of services for Public Health Consulting including but not limited to Education Awareness and Risk Reduction relative to lead contaminated water in Flint Michigan.

In the area of Risk Communication we have developed epidemiology influenced programming for disease intervention, risk assessment and risk reduction counseling testing referral and health services navigation.

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SHREVEPORT, LOUISIANA

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HEALTH AND DEVELOPMENT CONSULTING LLC.

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Please afford me an opportunity to further discuss our organizations ability to serve as a valued resource for the City of Flint as it works to recover from this Public Health crisis. I will contact you on or before Tuesday February 2, 2016 as a follow up to this correspondence. Should you wish to reach me prior to that time you are welcome to do so at 318.519.4802 or via email: [charletteedwards@gmail.com](mailto:charletteedwards@gmail.com). Thanks so much for your consideration I look forward to speaking with you and serving your community. With kind regards I am ...

Committed to Health and Wellness

*Charlette Edwards*

Charlette Edwards, MSPH

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

CHARLETTE EDWARDS, MSPH  
Shreveport, LA 71107 [Charletteedwards@gmail.com](mailto:Charletteedwards@gmail.com) 318.519.4802

**Summary**

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**Relevant Experience:**

**National Science Foundation – Wiley College**  
Marshall, Texas  
**STEM Project Manager**

- Provide technical guidance and assistance relative to scientific program planning

SHREVEPORT, LOUISIANA

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- Provide instruction in Environmental Sciences
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- Evaluate student mastery of skills and competencies required by course outcomes.

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- Developed Health and Safety Training Course for Construction Workers
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SHREVEPORT, LOUISIANA



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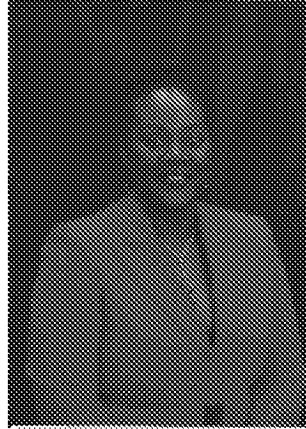
Carol Smith Peterson, B.S., R.N. – Nurse Care Manager

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CONTACT:

CHARLETTE EDWARDS, MSPH

1545 LINE AVE. SUITE 211

SHREVEPORT, LOUISIANA 71101

318.519.4802

CHARLETTEEDWARDS@GMAIL.COM

---

**From:** Stoken, Laura (GOV)  
**Sent:** Monday, February 01, 2016 2:45 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Public Health Consulting  
**Attachments:** C Edwards Concepts Portfolio Dr. Karen Weaver.pdf

For your determination

**From:** Charlette Edwards [<mailto:charletteedwards@gmail.com>]  
**Sent:** Monday, February 01, 2016 1:15 PM  
**To:** Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>; [mayor@cityofflint.com](mailto:mayor@cityofflint.com); [elidersanders@att.net](mailto:elidersanders@att.net)  
**Cc:** [saunder1@michigan.gov](mailto:saunder1@michigan.gov); Charlette Edwards <[charletteedwards@gmail.com](mailto:charletteedwards@gmail.com)>  
**Subject:** Public Health Consulting

Greetings,

With more than 25 years of professional experience spanning Politics, Administrative Law, and Public Health, I write you in hopes of securing an opportunity to serve you and your community through the provision of Public Health, Community Outreach and Risk Communications services.

Your consideration is greatly appreciated. Charlette Edwards

C. EDWARDS CONCEPTS PUBLIC  
HEALTH AND DEVELOPMENT CONSULTING LLC.

January 29, 2016

Honorable Rick Snyder, Governor Michigan

Honorable Dr. Karen Weaver, Mayor

Honorable Elder Patrick W. Sanders, Pastor New Jerusalem Full Gospel Baptist Church

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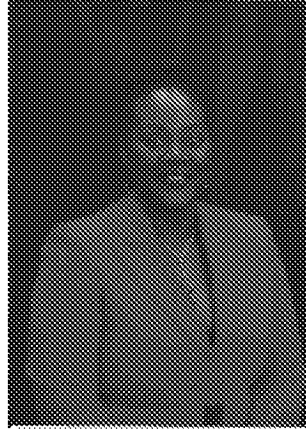
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318.519.4802

CHARLETTEEDWARDS@GMAIL.COM

---

**From:** Baird, Richard (GOV)  
**Sent:** Monday, February 01, 2016 11:10 PM  
**To:** Sachs, Tori (GOV); Creagh, Keith (DEQ)  
**Subject:** Fwd: Fw: Message from Dennis Cawthorne

These keep coming out of the woodwork. I wonder if we have/need someone from Keith's team separating the "wheat from the chaffe".

Rich

*Sent from my Verizon Wireless 4G LTE DROID*

----- Forwarded message -----

From: Dennis Cawthorne <[DCawthorne@kelley-cawthorne.com](mailto:DCawthorne@kelley-cawthorne.com)>  
Date: Feb 1, 2016 1:45 PM  
Subject: Fw: Message from Dennis Cawthorne  
To: "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>  
Cc: [rbaird003@hotmail.com](mailto:rbaird003@hotmail.com)

Rich:

I copied Vogel-Brown on our correspondence and here is their latest response. Note the second paragraph in which they again say their receiving a "Lab Report" would be helpful.

I presently have no vested interest in what Vogel-Brown is proposing but, from the outside, their potential ability to provide near term drinkable, clean water appears interesting and perhaps merits your team's interest, as well.

Dennis Cawthorne

---

**From:** Richard Brown <[rbrown@vogelandbrown.com](mailto:rbrown@vogelandbrown.com)>  
**Sent:** Saturday, January 30, 2016 5:22 PM  
**To:** Dennis Cawthorne  
**Subject:** RE: Message from Dennis Cawthorne

Dear Dennis,

This is great; now we need to come through. It sounds as though they've put a "Tiger Team" in place and just getting organized.

I have our engineers working on the concept that is focused on near term provision of drinkable, clean water. The lab report will ensure we're proposing the correct solution. There are several ways we can go about this, but I propose a Demo as a Proof of Concept to show that our system actually works.

We still have not been able to contact our large scale engineer/patent holder, but as soon as we do I'll let you know where we stand and a proposed schedule.

I'm also in contact with one of our associate contractors that does large scale epoxy coating of water pipes without have to remove or did them up. I should have more on them Monday.

Thanks for your support.

Richard Brown

---

**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, February 02, 2016 8:39 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** Company

For your determination

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**From:** info [mailto:info@rcunique.com]  
**Sent:** Monday, February 01, 2016 8:02 PM  
**To:** Stoken, Laura (GOV) <Stokenl@michigan.gov>  
**Subject:** Re: Re: RE: Executive Office of the Governor

Dear Laura ,

I read online that the plumbers union were helping all the flint residents chaning faucets and intall filters .pls note that we can provide our equipment and technique surport for free for flint residents ,but we will need the plumber union to do the cleaning process ,waiting for your reply .thanks

2016-02-01

---

**Best regards!**

**Melia Tang**

**19295 E .Walnut Dr.North #H**  
**City of Industry.Los Angeles.CA 91748**  
**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: www.rcunique.com**  
**Email:info@rcunique.com**

---

发件人 : "info" <info@rcunique.com>  
发送时间 : 2016-02-01 11:41  
主题 : Re: RE: Executive Office of the Governor  
收件人 : "Stoken, Laura (GOV)" <Stokenl@michigan.gov>

抄送：

Dear Laura ,

Thanks for your reply .please take a looking in our website .we are speciallize in clean water pipes for residents area .with our technology ,each single house will take around 2-3 hours to clean up all the pipes lines .no need any repipe or construction .right now we still serve Los Angeles .but if you need our help .we can certainly send someone to Flint city to help you .i think you are aware that the faucet filter won't be working so well if the residents still have dirty water pipes .they still can't get clean water for shower and other daily usage water as well .

please take a look in a website .and let me know how we can help .thanks

[www.rcunique.com](http://www.rcunique.com)

2016-02-01

**Best regards!**

**Melia Tang**

**19295 E .Walnut Dr.North #H**  
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**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: [www.rcunique.com](http://www.rcunique.com)**  
**Email:[info@rcunique.com](mailto:info@rcunique.com)**

---

发件人："Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>

发送时间：2016-02-01 11:31

主题：RE: Executive Office of the Governor

收件人："info" <[info@rcunique.com](mailto:info@rcunique.com)>

抄送：

Thank you Melia,

Please provide specific details so I can forward it to the appropriate person at the State Emergency Operations Center for review.

Thank you,

Laura

---

**From:** info [<mailto:info@rcunique.com>]  
**Sent:** Monday, February 01, 2016 2:22 PM  
**To:** Stoken, Laura (GOV) <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**Subject:** Re: Executive Office of the Governor

Dear Laura,

Thanks for your reply ,the reason I am contacting you is that I think my company can help the governor with this issue in the final stage .for flint water,there are still few steps to solve the issue .first,you government need to provide clean water source ,second ,you will need to repipe or clean all those corroded water pipe lines .third stage ,we may be able to help with our technology .as we all know how long and how expensive it is gonna take for repiping for each house ,if the water pipes are not so corroded ,we are able to clean the water pipes for residents .in this way ,they will get your clean water .let me know how you think about it ,I am waiting for your further reply .thanks .

2016-02-01

---

**Best regards!**

**Melia**

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**Tel:626 964 6612**  
**Fax:626 964 6609**  
**Web: www.rcunique.com**  
**Email:info@rcunique.com**

---

**发件人 :** "Stoken, Laura (GOV)" <[Stokenl@michigan.gov](mailto:Stokenl@michigan.gov)>  
**发送时间 :** 2016-02-01 11:11  
**主题 :** Executive Office of the Governor  
**收件人 :** "Melia T" <[info@rcunique.com](mailto:info@rcunique.com)>  
**抄送 :**

Dear Melia T,

Thank you for your recent correspondence sent to Governor Rick Snyder. As a member of Governor Snyder's staff, I am responding on his behalf.

The health and welfare of Flint residents is the top priority. Governor Snyder's focus is on getting residents the help they need and the response they deserve. He wants to ensure Flint residents have access to clean, safe drinking water. Safe water as well as filters are being delivered door to door and are also available at designated locations throughout the city.

The Governor created a bipartisan, independent task force to review all state, city and federal actions concerning Flint water and making recommendations for the future. We're focused at solving the immediate problems, and also addressing long-term needs. The Flint Water Interagency Coordinating Committee will bring together a wide range of experts to work on long-term solutions to the Flint water situation and ongoing public health concerns affecting residents.

Governor Snyder declared a state of emergency, requested federal assistance, and activated the Michigan National Guard. President Obama granted an emergency declaration, providing \$5 million for water, water filters, filter replacements and water test kits. Congress can approve additional funding. The Governor had also requested from the President a major disaster declaration, which was denied based on the legal requirement that under the Stafford Act disaster relief is available only for natural events, fires, floods, or explosions. The state is now appealing the disaster declaration denial.

The top priority of response efforts is to ensure residents have access to safe, clean drinking water. Residents should install filters to their taps to ensure they have immediate, ongoing access to safe water. It is important to follow installation and maintenance instructions for filters and replacement cartridges. There are five water resource centers, open seven days a week from 9 a.m. to 9 p.m. at Flint fire stations. There are water resource teams going door-to-door to ensure every resident has a water filter and additional water resources.

- If you want to donate or volunteer to help the people of Flint, visit: [www.helpforflint.com](http://www.helpforflint.com).

Since the Governor's emergency declaration we have distributed 207,055 cases of bottled water, nearly 37,342 filters, and 30,801 water testing kits. When installed and maintained properly, water filters remove 99 percent of lead in water. Residents are urged to use filtered water for drinking, food preparation, brushing teeth and watering pets. Unfiltered water may be used for bathing and cleaning.

For a Flint Water timeline, please visit [CLICK HERE](#).

Friday, January 29 Governor Snyder signed legislation bringing \$28 million to immediately help families in Flint with lead testing, treatment and other emergency services. The funding was part of a multi-point relief package the governor outlined last week during his state of the state address to the Michigan Legislature.

This is the second emergency supplemental funding bill allocated to assist the city of Flint this fiscal year. A previous \$9.3 million package was approved in October 2015 to reconnect Flint to the Detroit Water and Sewerage Department, provide filters and water testing to residents, aid in follow-up

health services for children and assist with plumbing inspections at schools and health facilities.

House Bill 5220, sponsored by state Rep. Phil Phelps and approved unanimously in both the House and Senate will help ensure Flint residents have access to safe, clean drinking water while helping to do the following:

- Supply free bottled water, faucet filters, and testing kits for Flint residents;
- Put nine nurses in local schools to monitor student health and well-being;
- Provide better nutrition for students and infants through WIC and in-school nutrition programs;
- Replace fixtures in schools, daycares, nursing homes and hospitals;
- Provide for an infrastructure study using independent experts;
- Treat any children who have high lead levels in the blood, using diagnostic testing, nurse visits and environmental assessments in the home;
- Provide additional community education opportunities within the Genesee County Health Department;
- Compensate the Michigan National Guard's work to support water distribution;
- Assist with home lead abatement costs;
- Help the City of Flint with utility issues;
- Provide operational funding for the Flint Interagency Advisory Committee.

The funding bill totals \$28 million with \$22.6 million from the general fund. The remaining \$5.4 million comes from a combination of federal and restricted funds. It is now Public Act 3 of 2016.

Governor Snyder will propose a long-term funding solution to address the ongoing needs of Flint in his Feb. 10 formal budget recommendation. Long-term health monitoring for children exposed to the water and potential replacement of water infrastructure and service lines will be addressed through the governor's traditional budget recommendation, which will be shared on Feb. 10.

We will continue to work to improve the water situation in Flint. Community members and local officials are working together to make sure we hear and respond to concerns.

Thursday, January 28 a plan to recycle the thousands of plastic bottles being distributed during the Flint water crisis. The plan includes drop-off sites for recyclables and increased promotion of the curb side pickup already offered to Flint residents. [To learn more about the recycling plan in Flint, click here.](#)

For updates, please visit [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater).

Thank you, again, for taking the time to share your concerns with our office. Should you have any further comments, questions or concerns regarding this or any other state-related matter, I've included my contact information below.

Sincerely,



Laura Stoken  
Constituent Relations Division  
Executive Office of the Governor, Rick Snyder  
517.335.7858 (o)

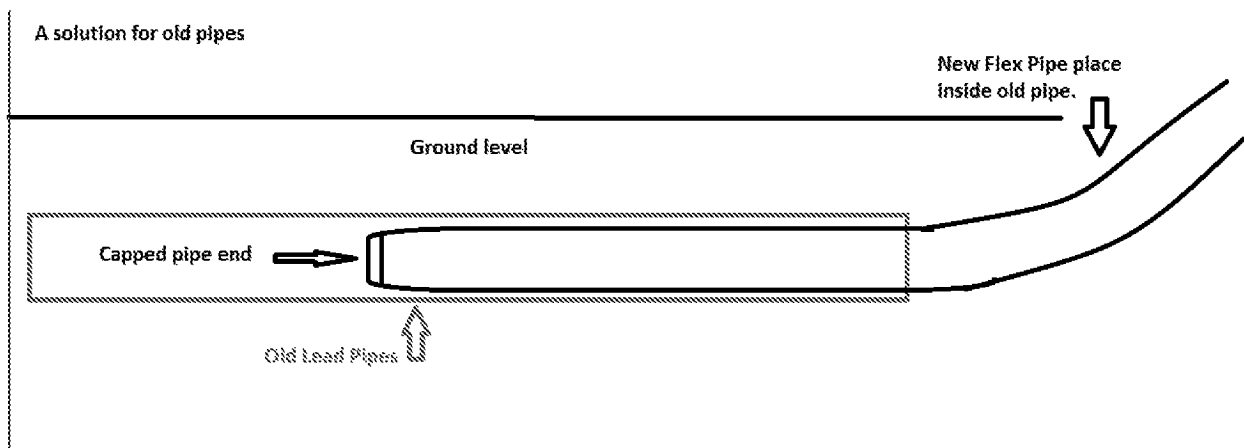
Greetings;

While I am not an engineer I have come up with a solution for the Flint water line replacement issues. The concept came from remembering how new natural gas lines were being placed this past summer. The lines had a flex to them and where placed in holes bored at an angle underground the running horizontally.

Using a similar concept use a flex pipe that is smaller than the inside diameter of the old pipe. the end that is inserted is capped to protect the inside of the new pipe while it is sliding the old pipe.

This concept can be used for main and feeder lines.

See Diagram below for example:



It is my belief that this would greatly reduce the time and expense needed to repair and or replace the old toxic water lines. The slightly smaller lines will slightly reduce the rate of flow but the speed which it could be greater than digging up the old lines.

Please consider this as a quicker solution to the issue that has arisen in Flint.

Brian Storace  
Owosso,MI

---

**From:** Stoken, Laura (GOV)  
**Sent:** Tuesday, February 02, 2016 10:08 AM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: Flint Water solution suggestion  
**Attachments:** flint pipe solution.pdf

For your determination

---

**From:** B Storace [<mailto:brs2home@yahoo.com>]  
**Sent:** Friday, January 22, 2016 3:51 PM  
**To:** Calley, Brian (GOV) <[Brian.Calley@michigan.gov](mailto:Brian.Calley@michigan.gov)>  
**Subject:** Fw: Flint Wat solution suggestion

2nd attempt first was kicked back

----- Forwarded Message -----

**From:** B Storace <[brs2home@yahoo.com](mailto:brs2home@yahoo.com)>  
**To:** "brian.calley@michigan.gov" <[brian.calley@michigan.gov](mailto:brian.calley@michigan.gov)>  
**Sent:** Wednesday, January 20, 2016 8:13 PM  
**Subject:** Flint Wat solution suggestion

Mr. Calley;

The share an opinion system was not working tonight for Govenor Snyder. I was trying to pass a long a solution I came up with for the toxic Flint pipes. I have a PDF attached explaining the solution. If you coould please pass it along to anyone who will find it useful it solving the issues.

Best regards  
Brian Storace  
1709 N. M 52  
Owosso, MI 48867

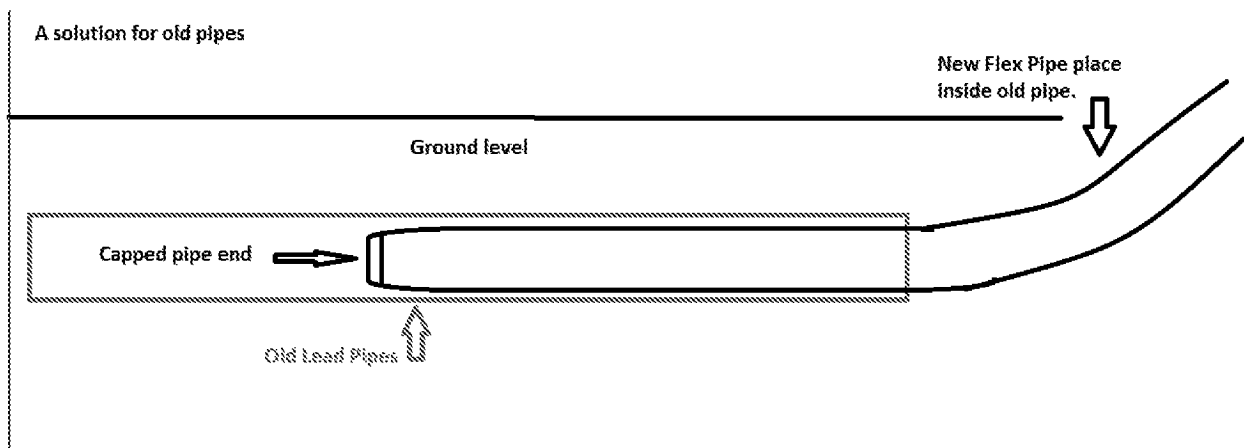
Greetings;

While I am not an engineer I have come up with a solution for the Flint water line replacement issues. The concept came from remembering how new natural gas lines were being placed this past summer. The lines had a flex to them and where placed in holes bored at an angle underground the running horizontally.

Using a similar concept use a flex pipe that is smaller than the inside diameter of the old pipe. the end that is inserted is capped to protect the inside of the new pipe while it is sliding the old pipe.

This concept can be used for main and feeder lines.

See Diagram below for example:



It is my belief that this would greatly reduce the time and expense needed to repair and or replace the old toxic water lines. The slightly smaller lines will slightly reduce the rate of flow but the speed which it could be greater than digging up the old lines.

Please consider this as a quicker solution to the issue that has arisen in Flint.

Brian Storace  
Owosso,MI

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**From:** McBride, Bill (GOV)  
**Sent:** Tuesday, February 02, 2016 1:06 PM  
**To:** Sachs, Tori (GOV)  
**Subject:** FW: IBWA Letter for Governor Snyder  
**Attachments:** Snyder Flint letter 012916.pdf

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**From:** James Toner [<mailto:JToner@bottledwater.org>]  
**Sent:** Monday, February 01, 2016 7:46 AM  
**To:** McBride, Bill (GOV) <[mcbrideb@michigan.gov](mailto:mcbrideb@michigan.gov)>  
**Subject:** IBWA Letter for Governor Snyder

Bill,

I hope this finds you well and that you are holding up with everything going on regarding Flint. It's been a while since we have talked but I was always impressed with all the individuals in Governor Snyder's office that cover water issues. So, I imagine you have things well in hand.

I wanted to get this letter from IBWA to the Governor to let him know the bottled water industry is doing all we can and we stand ready to assist in any way possible moving forward.

Please let me know if you have any questions or if I can be of further assistance.

JP

James P. Toner, Jr.  
Director of Government Relations  
International Bottled Water Association (IBWA)  
1700 Diagonal Road  
Suite 650  
Alexandria, Virginia 22314  
703.647.4616 Direct  
703.683.5213 Main  
703.683.4074 Fax

Follow IBWA on





1700 Diagonal Road, Suite 650  
Alexandria, VA 22314  
Ph: 703-683-5213  
Fax 703-683-4074  
Web: [www.bottledwater.org](http://www.bottledwater.org)

January 29, 2016

The Honorable Rick Snyder  
Governor of Michigan  
P.O. Box 30013  
Lansing, MI 48909

Dear Governor Snyder,

The International Bottled Water Association (IBWA) would like to take this opportunity to offer our assistance to you and your administration in responding to the recent water emergency in Flint, Michigan. Our members are very familiar with the logistics of responding to events such as natural disasters, water main breaks, and other incidents that can compromise public water systems. IBWA therefore appreciates the recent efforts undertaken by the state, the city of Flint, and third parties to ensure that citizens receive clean, potable water during this significant crisis. Over the years, IBWA has had several opportunities to discuss various water issues with your staff and we have always been impressed with their knowledge and understanding of critical water infrastructure matters.

The bottled water industry is always there to help during a natural disaster or other emergency situation. And every year, IBWA members respond to requests -- both big and small -- to provide bottled water to those in need. In Flint, IBWA members immediately stepped forward to reroute trucks and coordinate with local suppliers to provide citizens with safe, clean, bottled water when the public water system was found to be compromised. So far, IBWA members have taken the following actions to help provide the citizens of Flint with safe drinking water:

- Donated over 1.5 million bottles of bottled water.
- Coordinated efforts with emergency relief partners such as Convoy of Hope and the Food Bank of Eastern Michigan.
- Worked with other bottled water retailers and bottlers to ensure approximately 10,000 Flint public school students have access to clean, safe water.

IBWA is the national trade association that represents all segments of the bottled water industry, including spring, mineral, purified, artesian, and sparkling. Founded in 1958, IBWA member companies include water producers, distributors, and suppliers throughout the United States, including several companies conducting business in Michigan. While we represent companies of all sizes, the vast majority of our members are small, locally-owned companies, with 60 percent reporting less than \$2.5 million in annual gross sales, and 90 percent reporting less than \$10 million in annual gross sales. IBWA's mission is to serve the members and the public by championing bottled water as an important choice for healthy hydration, and promoting an environmentally responsible and sustainable industry.

While the conditions associated with the situation in Flint continue to be addressed, please know that the bottled water industry is always ready to help in any way to assist in providing safe, clean, healthy water.

Please contact me should you have any questions or if we can be of any further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Joe Doss".

Joe Doss  
President and CEO



1700 Diagonal Road, Suite 650  
Alexandria, VA 22314  
Ph: 703-683-5213  
Fax 703-683-4074  
Web: [www.bottledwater.org](http://www.bottledwater.org)

January 29, 2016

The Honorable Rick Snyder  
Governor of Michigan  
P.O. Box 30013  
Lansing, MI 48909

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Please contact me should you have any questions or if we can be of any further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Joe Doss".

Joe Doss  
President and CEO

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 18, 2016 11:27 AM  
**To:** Ingersoll, Jean (DHHS)  
**Cc:** Wellman, Jeff (DTMB); Maynard, Sharon (DTMB)  
**Subject:** RE: Flint FOIA - DTMB Systems

Jean,

I don't see Buy4Michigan as a concern. I would think MAIN would be more likely with purchase orders. To my knowledge, all of the purchasing has been classified as "emergency purchases" which would not flow through Buy4Michigan.

Jeff

---

**From:** Ingersoll, Jean (DTMB)  
**Sent:** Wednesday, February 17, 2016 6:25 AM  
**To:** Allen, Charlotte (DTMB) <[AllenC1@michigan.gov](mailto:AllenC1@michigan.gov)>; Best, Marcy (DTMB) <[BestM@michigan.gov](mailto:BestM@michigan.gov)>; Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>; Buhs, Caleb (DTMB) <[BuhsC@michigan.gov](mailto:BuhsC@michigan.gov)>; Davenport, Rodney (DTMB) <[DavenportR1@michigan.gov](mailto:DavenportR1@michigan.gov)>; Donnan, Chanda (DTMB) <[DonnanC@michigan.gov](mailto:DonnanC@michigan.gov)>; Fortino, Diane (DTMB) <[FortinoD@michigan.gov](mailto:FortinoD@michigan.gov)>; Gilliland, Michael (DTMB) <[gillilandm@michigan.gov](mailto:gillilandm@michigan.gov)>; Gonzalez, Tonyia (DTMB) <[GonzalezT1@michigan.gov](mailto:GonzalezT1@michigan.gov)>; Griswold, Kim (DTMB) <[GRISWOLDK@michigan.gov](mailto:GRISWOLDK@michigan.gov)>; Jeffery, Phillip (DTMB) <[JefferyP@michigan.gov](mailto:JefferyP@michigan.gov)>; Kopacsi, Christian (DTMB) <[KopacsiC@michigan.gov](mailto:KopacsiC@michigan.gov)>; Lowe, Richard (DTMB) <[lower@michigan.gov](mailto:lower@michigan.gov)>; Manning, Kelly (DTMB) <[ManningK4@michigan.gov](mailto:ManningK4@michigan.gov)>; Mathews, Jamie (DTMB) <[MathewsJ@michigan.gov](mailto:MathewsJ@michigan.gov)>; McFarlane, James (DTMB) <[mcfarlanej@michigan.gov](mailto:mcfarlanej@michigan.gov)>; Nixon, Ruth (DTMB) <[NixonR@michigan.gov](mailto:NixonR@michigan.gov)>; Palmer, Jason (DTMB) <[PalmerJ2@michigan.gov](mailto:PalmerJ2@michigan.gov)>; Rabidoux, Jill (DTMB) <[RabidouxJ@michigan.gov](mailto:RabidouxJ@michigan.gov)>; Ragsdale, Aimee (DTMB) <[RagsdaleA@michigan.gov](mailto:RagsdaleA@michigan.gov)>; Schafer, Dana (DTMB) <[schaferd1@michigan.gov](mailto:schaferd1@michigan.gov)>; Swanson, Eric (DTMB) <[swansone@michigan.gov](mailto:swansone@michigan.gov)>; Sweeney, Matthew (DTMB) <[SweeneyM1@michigan.gov](mailto:SweeneyM1@michigan.gov)>; Taylor, Beverly (DTMB) <[TaylorB8@michigan.gov](mailto:TaylorB8@michigan.gov)>; Trakul, Pamela (DTMB) <[TrakulP@michigan.gov](mailto:TrakulP@michigan.gov)>; Turnquist, Michael (DTMB) <[TurnquistM@michigan.gov](mailto:TurnquistM@michigan.gov)>; VanCoevering, Joyce (DTMB) <[Vancoeveringj1@michigan.gov](mailto:Vancoeveringj1@michigan.gov)>; Vanden Bosch, Kerrie (DTMB) <[vandenboschk@michigan.gov](mailto:vandenboschk@michigan.gov)>; Wellman, Jeff (DTMB) <[WellmanJ1@michigan.gov](mailto:WellmanJ1@michigan.gov)>  
**Cc:** Behen, David (DTMB) <[Behend@michigan.gov](mailto:Behend@michigan.gov)>; Stibitz, Brom (DTMB) <[StibitzB@michigan.gov](mailto:StibitzB@michigan.gov)>; King, Susan (MCSC) <[KingS5@michigan.gov](mailto:KingS5@michigan.gov)>; Gelisse, Ashley (DTMB) <[GelisseA@michigan.gov](mailto:GelisseA@michigan.gov)>  
**Subject:** Flint FOIA - DTMB Systems

SMT Members:

In response to the Flint FOIA Project we have compiled a list of DTMB-owned systems that may need to be searched depending on *whether or not the systems listed would reasonably contain any of the search terms* sent on Friday (see search terms below). We are not asking you to perform any searches at this time, additional instructions are forthcoming.

What I need from you is to:

- 1) review the list and tell me whether the systems listed may contain the search terms (center column);
- 2) notify me if there are DTMB systems that are not listed that may contain the search terms;
- 3) tell me who is the individual responsible for performing the search in the system on behalf of the custodians (right column);

This information is due back to me close of business (5:00pm) today, Wednesday.



<b>Electronic/DTMB Systems</b>	E-Mich	Pauley (Swanson) (Already public facing?)
	Buy4Mich	Maynard (Brownlee/Wellman)
	MAIN	Dave Gabler (Brownlee/Wellman)
	MPSCS	Brad Stoddard (Swanson)
	Anything Related to Cyber?	Christian Kopacsi
	FileNet	Demello (Swanson)
	Time and Expense	Laurie Westfall/Dave Gabler (McFarlane)
	DCDS	Laurie Westfall/Dave Gabler (McFarlane)
	X3	Turnquist (Stibitz)
	HPTrim	Kristi Thompson (Joyce Vancouvering)

Search Terms:

Legionnaire

Legionella

"boil water order" & "Flint" (anywhere in document)

"coli" & Flint (anywhere in document)

"bacteria" & "Flint" (anywhere in document)

"microb" & "Flint" (anywhere in document)

"TTHM" & "Flint" (anywhere in document)

"Lead" & "Flint" (anywhere in document)

"emergency" & "Flint" (anywhere in document)

Karegnondi

"Genesee County Health Department"

"Flint" (within sentence) "utilities"

"Lead and Copper Rule"

"Detroit Water and Sewerage Department" & "Flint" (anywhere in document)

"DWSD" & "Flint" (anywhere in document)

"Flint River"

"Pb" & "water" (anywhere in document)

"KWA"

Thank you all. Jean

Jean M. Ingersoll, JD

Michigan Department of Technology, Management & Budget

Lewis Cass Building

320 South Walnut St.

PO Box 30026

Lansing, MI 48909

517-241-8844 (O)

517-282-2474 (C)



HELP. CONNECT. SOLVE.

---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 18, 2016 1:03 PM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** Fwd: Flint water problems.  
**Attachments:** IMG\_0001.JPG; ATT00001.htm; IMG\_0009.JPG; ATT00002.htm; ATT66402.eml; ATT00003.htm; ReportViewer.pdf; ATT00004.htm; water testing2-6.pdf; ATT00005.htm

New one from today.

Sent from my iPhone

Begin forwarded message:

**From:** "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
**To:** "Brownlee, Jeff (DTMB)" <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
**Subject:** FW: FW: Flint water problems.

Another filter idea.

Kevin Weise  
Chief of Staff  
Mission Flint  
517-420-2652 (m)

---

From: Baird, Richard (GOV)  
Sent: Tuesday, February 16, 2016 11:02 AM  
To: Weise, Kevin (MSP); Brownlee, Jeff (DTMB)  
Subject: Fwd: FW: Flint water problems.

Sent from my Verizon 4G LTE Droid

----- Forwarded message -----

From: "Scott, Allison (GOV)" <[scotta12@michigan.gov](mailto:scotta12@michigan.gov)>  
Date: Feb 16, 2016 9:46 AM  
Subject: FW: Flint water problems.  
To: "Weise, Kevin (MSP)" <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
Cc: "Baird, Richard (GOV)" <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>

For your review

From: Jackie Goforth (US - Assurance) [<mailto:jacalyn.s.goforth@pwc.com>]  
Sent: Tuesday, February 16, 2016 9:33 AM  
To: Snyder, Rick (GOV) <[Rick.Snyder@michigan.gov](mailto:Rick.Snyder@michigan.gov)>  
Cc: Richard L. Baird <[rbaird003@hotmail.com](mailto:rbaird003@hotmail.com)>; Scott, Allison (GOV) <[scotta12@michigan.gov](mailto:scotta12@michigan.gov)>

Subject: Fwd: Flint water problems.

Rick,

First, let me say that my thoughts and prayers have been with you and your team. I can't even imagine the heartache you are experiencing over this situation.

You know how friends are, we can't help but try to see what ideas we can come up with to help provide some type of solution. One my High School friends thinks she and her family have one.

It is a Michigan based company that has a water filtration solution. Below is the information he shared with Debbie Stabenow, you may have already seen this, but in case you haven't I thought I would pass it along.

I can't think of a person better suited to lead us all through this situation. Thank you for your balanced and thoughtful leadership.

Kindest Regards,

Jackie

----- Forwarded message -----

From: Marybeth Novitsky <[mbmills989@gmail.com](mailto:mbmills989@gmail.com)<<mailto:mbmills989@gmail.com>>>

Date: Mon, Feb 15, 2016 at 7:54 PM

Subject: Fwd: Flint water problems.

To: [jacalyn.s.goforth@us.pwc.com](mailto:jacalyn.s.goforth@us.pwc.com)<<mailto:jacalyn.s.goforth@us.pwc.com>>, [jacalyn.s.goforth@pwc.com](mailto:jacalyn.s.goforth@pwc.com)<<mailto:jacalyn.s.goforth@pwc.com>>

Cc: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)<<mailto:joe@jsn-aia.com>>>

Jackie -

Here is the letter that Joe sent to Senator Stabenow. Since then, the Merlin was installed at St Mary's church to supply water for the homeless, in their shelter. The next Merlin will be installed at St Luke's Women's and Children's Center. Thank you for your efforts.

We appreciate it.

Marybeth

----- Forwarded message -----

From: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Date: Thu, Jan 28, 2016 at 12:45 PM

Subject: Flint water problems.

To: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

Good Morning Senator.

Please take the time to read this—WE CAN HELP--

This is Joe Novitsky, Architect and inventor of a water purifier that can eliminate or minimize the bottled water eco disaster pending in Flint.

We have been studying the problem, testing the water, and watched you last night on Rachael's show.

YOU DID GREAT! You are the ONLY one that understands the problem right now—even Rachael is not as clear as you on the solution.

Yes, we need filtered water and no one is ever going to dig up the entire City—the pipes will re-coat, and the new supply from Lake Huron will be complete within 18 months and the City system will again be healthy, but what to do until then?

We have a plan.

Of the 100K residents affected we estimate 25,000 households, and 14,000 businesses, based on information taken from the internet.

Each household of 4 needs 5 gallons per day for drinking and cooking.

We can service this need with approximately 300 units, distributed across the City with the HELP OF the COMMUNITY, and that is where you come in. These Places distributing water must be relieved from paying for the water being distributed. If that can be accomplished, we can solve this 18 month problem for about \$2.5M—FAR LESS than any other proposed effort we have heard about.

We would recommend filtered shower heads, ( about \$50 each), maybe for the clothes washer as well, and one Merlin Eco Solutions unit for about 80-100 homes ( one unit / station per every three blocks), at \$2,000 each, installed by currently unemployed technicians and Vets- that will be paid to do this. We could distribute in 5 gallon camping containers, and each resident would have to lug their daily water no more than a block and a half. It's a pain – but what other REAL choice do we have? The filters they are distributing now are good for 100 gallons, untested, and again an eco-disaster in and of themselves. Our lead filters do not have to be changed for up to 10,000 each and the first primary filter is ceramic and can be cleaned re-used for as many as half a million gallons each!

This same equivalent in bottled water equals 1,250,000 bottles spent PER DAY!! The raw cost, ( \$1/bottle) and associated cost of the current campaign are certainly not sustainable nor acceptable. Have you ever tried to shower with a bottle of water?

Please see the Flint water test results attached. A photo of one that was being installed in a Flint shelter is also attached. The two samples in the other photos are from Michigan Works!, just down the street from your Office, before and after purifying.

Our website is: [www.merlinecosolutions.com](http://www.merlinecosolutions.com)<<http://www.merlinecosolutions.com>>

We are currently working on getting one or two installed at St. Mary's Church currently servicing the bottle distribution, homeless shelter and Michael's Soup Kitchen. This will make an immediate contribution and difference. We did this with funds from GoFundMe site and contributions! (see attached). By the time we get something going with you, you will have their support as we took their water samples yesterday and they are being tested today. Deacon Paul is our contact there. We are currently attempting to help Dr. Mona as well----

FYI—Stanford University Medical Staff, Dr. Weiss, has endorsed this unit and science and Michigan State Chemistry and Biology Labs and Students will be monitoring the units we install to safeguard the residents and process. National Testing Labs have been the Lab we are using to date., (see attached).

I can be reached and will come demonstrate and show off our unit and results whenever you have time – if you are inclined to help us.

Thanks for the time--- and your awareness--- and focus on the solution—

Sincerely,

Joseph S. Novitsky, AIA

Merlin Eco Solutions

O (248) 433-2030

M (586) 995-2170

[Joe@JSN-AIA.com](mailto:Joe@JSN-AIA.com)<<mailto:Joe@JSN-AIA.com>>

Skype: JoeN-AIA

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[\[http://static.avast.com/emails/avast-mail-stamp.png\]](http://static.avast.com/emails/avast-mail-stamp.png)<<http://www.avast.com/>>

This email has been checked for viruses by Avast antivirus software.

[www.avast.com](http://www.avast.com)<<http://www.avast.com>>

----- Forwarded message -----

From: Charles Chervenka <[cjchervenka@gmail.com](mailto:cjchervenka@gmail.com)<<mailto:cjchervenka@gmail.com>>>

To: Joe Novitsky <[joe@jsn-aia.com](mailto:joe@jsn-aia.com)<<mailto:joe@jsn-aia.com>>>

Cc:

Date: Tue, 12 Jan 2016 20:36:17 -0500

Subject: Fwd: Lynn posted an update on "Water Purifier for Mission of Hope"

Here's the site for funding. Just click on it.

To get the test data google Merlin Eco Solutions and then click on "test results" at the top of the page.

CJC

----- Forwarded message -----

From: Lynn via GoFundMe <[messages@gofundme.com](mailto:messages@gofundme.com)<<mailto:messages@gofundme.com>>>

Date: Tue, Jan 12, 2016 at 9:56 AM

Subject: Lynn posted an update on "Water Purifier for Mission of Hope"

To: [cjchervenka@gmail.com](mailto:cjchervenka@gmail.com)<<mailto:cjchervenka@gmail.com>>

Hi Charles A new update has been posted to Water Purifier for Mission of Hope Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't nee...

[<https://febc376daf6131a28181-3721cc30b0d63259b2211381d1431a50.ssl.cf1.rackcdn.com/logo-email-v5@2x.png>]

Charles, I posted an update on

#### Water Purifier for Mission of Hope

[http://link\\_email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBR0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dbody\\_photo%26utm\\_campaign%3Dupd\\_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUElEXzExMzM7MXw3NzY2NjM6UVVfVUVJRf8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQlOX2dtYWlsLmNvbTs%3D](http://link_email.dynect.net/link.php?H=fRSspyRTfXPA1bNH7n3imVZvebSdS9eyYyilh3rldq9TLVuUBwxypCiq9X3Ibhaz09ZuBBR0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dbody_photo%26utm_campaign%3Dupd_n&I=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUElEXzExMzM7MXw3NzY2NjM6UVVfVUVJRf8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQlOX2dtYWlsLmNvbTs%3D)

Thank you to all who've donated so far! Please also share this with friends and family! I know we can reach the goal, and the sooner we do, the sooner the mission won't nee...

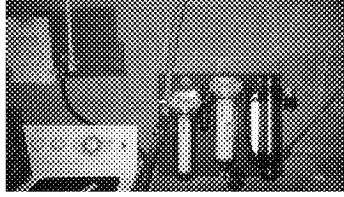
#### View Campaign

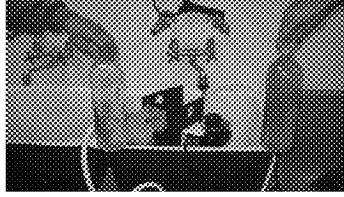
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[<https://2dbdd5116ffa30a49aa8->



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**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166

(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349706****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw, Tap Water**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	1.20*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	34.0	1	1/19/2016 10:30	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	5.000*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	9.100*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	0.850*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	10.00	1	1/19/2016 10:30	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.280*	1	1/19/2016 10:30	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 10:30	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.018	1	1/19/2016 10:30	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	2.6	1	1/19/2016 10:30	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016

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# National Testing Laboratories, Ltd

556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585

## ANALYTICAL REPORTS

SAMPLE CODE: 349706

1/22/2016

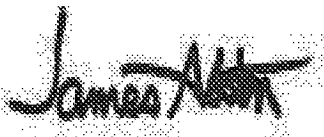
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	15	1	1/19/2016 10:30	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.520	1	1/19/2016 10:30	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**National Testing Laboratories, Ltd**

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(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349707****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** 711 S. Saginaw. Filtered through Purifier**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	ND	1	1/19/2016 10:30		1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 10:30		1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	0.002	1	1/19/2016 10:30		1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 10:30		1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	2.2	1	1/19/2016 10:30		1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 10:30		1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	ND	1	1/19/2016 10:30		1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	7.10	1	1/19/2016 10:30		1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	1	1/19/2016 10:30		1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	0.006	1	1/19/2016 10:30		1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	ND	1	1/19/2016 10:30		1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 10:30		1/21/2016

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## ANALYTICAL REPORTS

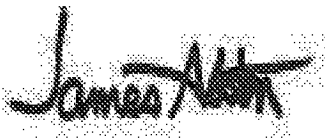
SAMPLE CODE: 349707

1/22/2016

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	32	1	1/19/2016 10:30		1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 10:30		1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	ND	1	1/19/2016 10:30		1/21/2016

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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**National Testing Laboratories, Ltd**

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(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS****SAMPLE CODE: 349708****1/22/2016**

**Customer:** JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

**Source:** Flint River Water (Flint River - Downtown)**Source City:** Flint**Source State:** MI**Date/Time Received:** 1/19/2016 15:00**Collected by:** J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Inorganic Analytes - Metals</b>										
1002	Aluminum	200.7	0.2	mg/L	0.05	0.12	1	1/19/2016 11:00	1/21/2016	1/21/2016
1074	Antimony	200.8	0.006	mg/L	0.003	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1005	Arsenic	200.8	0.010	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1010	Barium	200.7	2	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1075	Beryllium	200.7	0.004	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1079	Boron	200.7	--	mg/L	0.10	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1015	Cadmium	200.7	0.005	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1016	Calcium	200.7	--	mg/L	2.0	79.0	1	1/19/2016 11:00	1/21/2016	1/21/2016
1020	Chromium	200.7	0.100	mg/L	0.007	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1022	Copper	200.7	1.0	mg/L	0.002	0.002	1	1/19/2016 11:00	1/21/2016	1/21/2016
1028	Iron	200.7	0.3	mg/L	0.020	0.280	1	1/19/2016 11:00	1/21/2016	1/21/2016
1030	Lead	200.8	0.015	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1031	Magnesium	200.7	--	mg/L	0.50	28.00	1	1/19/2016 11:00	1/21/2016	1/21/2016
1032	Manganese	200.7	0.05	mg/L	0.004	0.032	1	1/19/2016 11:00	1/21/2016	1/21/2016
1035	Mercury	200.8	0.002	mg/L	0.0002	ND	J15 1	1/19/2016 11:00	1/21/2016	1/21/2016
1036	Nickel	200.7	--	mg/L	0.005	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1042	Potassium	200.7	--	mg/L	1.0	3.3	1	1/19/2016 11:00	1/21/2016	1/21/2016
1045	Selenium	200.8	0.05	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1050	Silver	200.7	0.10	mg/L	0.002	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016

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## ANALYTICAL REPORTS

SAMPLE CODE: 349708

1/22/2016

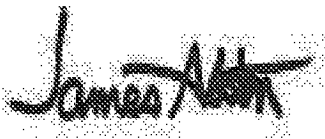
Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
1052	Sodium	200.7	--	mg/L	1	34	1	1/19/2016 11:00	1/21/2016	1/21/2016
1085	Thallium	200.8	0.002	mg/L	0.001	ND	1	1/19/2016 11:00	1/21/2016	1/21/2016
1095	Zinc	200.7	5.000	mg/L	0.004	0.007	1	1/19/2016 11:00	1/21/2016	1/21/2016

Qualifiers:

J15: Estimated value, the metals analysis required digestion, this method is not suitable for the determination of volatile organo-mercury compounds.

These test results may be used for compliance purpose as required.

Analyst	Tests
JP	200.7
EC	200.8



James Abston, Operations Manager

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ANALYTICAL REPORTS

SAMPLE CODE: 350014

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #1  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	520*	A6 1	1/27/2016 13:53		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	66*	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350015

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: 711 S. Saginaw - #2 Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	2	A6	1	1/27/2016 13:53	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 13:53		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350016  
2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: Flint River (Raw) #3  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	390	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	>200*	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

- A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.  
Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350017

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: Flint River (Purified) #4  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1	A6,Q	1	1/27/2016 14:06	1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 14:06		1/28/2016 13:00

Qualifiers:

- A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.
- Q: Sample analyzed beyond the accepted holding time.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350018

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #5  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)  
"NA" Not Analyzed  
"Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.  
"LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.  
"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	1200*	A6 1	1/27/2016 15:08		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:08		1/28/2016 13:00

Qualifiers:

A6: The colony count for SPC bacteria is outside the method specifications and the result should be considered as estimated CFU per milliliter.

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 350019

2/4/2016

Customer: JSN Architecture  
Joseph Novitsky  
1755 Royal Ave  
Berkley, MI 48072

Source: St. Mary's Church #6 - Purified  
Source City: Flint  
Source State: MI

Date/Time Received: 1/28/2016 08:26  
Collected by: J. Novitsky

The results herein conform to TNI and ISO/IEC 17025:2005 standards, where applicable, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

Legend:

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

- "ND" This contaminant was not detected at or above our lower reporting limit (LRL)
- "NA" Not Analyzed
- "Standard" This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.
- "LRL" This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.
- "DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Microbiologicals										
3114	E. Coli	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00
3001	Standard Plate Count	9215B	500	CFU/ml	1	<1	1	1/27/2016 15:10		1/28/2016 12:20
Pour Plate Method, 35°C/48hr, Plate Count Agar										
3000	Total Coliform	9223B	1	MPN/100 mL	1	ND	1	1/27/2016 15:10		1/28/2016 13:00

These test results may be used for compliance purpose as required.

Analyst	Tests
CF	9223B
GK	9215B



Christine MacMillan, Technical Director

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---

**From:** Brownlee, Jeff (DTMB)  
**Sent:** Thursday, February 18, 2016 1:03 PM  
**To:** Weise, Kevin (MSP)  
**Subject:** Re: Flint water problems.

Got it. Thx

Sent from my iPhone

> On Feb 18, 2016, at 12:58 PM, Weise, Kevin (MSP) <WeiseK@michigan.gov> wrote:

>

> Another filter idea.

>

> Kevin Weise

> Chief of Staff

> Mission Flint

> 517-420-2652 (m)

>

> \_\_\_\_\_  
> From: Baird, Richard (GOV)

> Sent: Tuesday, February 16, 2016 11:02 AM

> To: Weise, Kevin (MSP); Brownlee, Jeff (DTMB)

> Subject: Fwd: FW: Flint water problems.

>

> Sent from my Verizon 4G LTE Droid

> ----- Forwarded message -----

> From: "Scott, Allison (GOV)" <scotta12@michigan.gov>

> Date: Feb 16, 2016 9:46 AM

> Subject: FW: Flint water problems.

> To: "Weise, Kevin (MSP)" <WeiseK@michigan.gov>

> Cc: "Baird, Richard (GOV)" <bairdr@michigan.gov>

>

>

> For your review

>

>

>

> From: Jackie Goforth (US - Assurance) [mailto:jacalyn.s.goforth@pwc.com]

> Sent: Tuesday, February 16, 2016 9:33 AM

> To: Snyder, Rick (GOV) <Rick.Snyder@michigan.gov>

> Cc: Richard L. Baird <rbaird003@hotmail.com>; Scott, Allison (GOV) <scotta12@michigan.gov>

> Subject: Fwd: Flint water problems.

>

>

>

> Rick,

>

>

>



> First, let me say that my thoughts and prayers have been with you and your team. I can't even imagine the heartache you are experiencing over this situation.

>

>

>

> You know how friends are, we can't help but try to see what ideas we can come up with to help provide some type of solution. One my High School friends thinks she and her family have one.

>

>

>

> It is a Michigan based company that has a water filtration solution. Below is the information he shared with Debbie Stabenow, you may have already seen this, but in case you haven't I thought I would pass it along.

>

>

>

> I can't think of a person better suited to lead us all through this situation. Thank you for your balanced and thoughtful leadership.

>

>

>

> Kindest Regards,

>

>

>

> Jackie

>

>

>

>

>

> ----- Forwarded message -----

> From: Marybeth Novitsky <mbmills989@gmail.com<mailto:mbmills989@gmail.com>>

> Date: Mon, Feb 15, 2016 at 7:54 PM

> Subject: Fwd: Flint water problems.

> To: jacalyn.s.goforth@us.pwc.com<mailto:jacalyn.s.goforth@us.pwc.com>,  
jacalyn.s.goforth@pwc.com<mailto:jacalyn.s.goforth@pwc.com>

> Cc: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>

>

>

> Jackie -

>

>

>

> Here is the letter that Joe sent to Senator Stabenow. Since then, the Merlin was installed at St Mary's church to supply water for the homeless, in their shelter. The next Merlin will be installed at St Luke's Women's and Children's Center. Thank you for your efforts.

>

> We appreciate it.

>

>

>

> Marybeth

>  
>  
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>  
> ----- Forwarded message -----  
> From: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>  
> Date: Thu, Jan 28, 2016 at 12:45 PM  
> Subject: Flint water problems.  
> To: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>  
>  
>  
> Good Morning Senator.  
>  
>  
>  
> Please take the time to read this—WE CAN HELP--  
>  
>  
>  
> This is Joe Novitsky, Architect and inventor of a water purifier that can eliminate or minimize the bottled water eco disaster pending in Flint.  
>  
> We have been studying the problem, testing the water, and watched you last night on Rachael's show.  
>  
> YOU DID GREAT! You are the ONLY one that understands the problem right now—even Rachael is not as clear as you on the solution.  
>  
> Yes, we need filtered water and no one is ever going to dig up the entire City—the pipes will re-coat, and the new supply from Lake Huron will be complete within 18 months and the City system will again be healthy, but what to do until then?  
>  
>  
>  
> We have a plan.  
>  
>  
>  
> Of the 100K residents affected we estimate 25,000 households, and 14,000 businesses, based on information taken from the internet.  
>  
> Each household of 4 needs 5 gallons per day for drinking and cooking.  
>  
> We can service this need with approximately 300 units, distributed across the City with the HELP OF the COMMUNITY, and that is where you come in. These Places distributing water must be relieved from paying for the water being distributed. If that can be accomplished, we can solve this 18 month problem for about \$2.5M—FAR LESS than any other proposed effort we have heard about.  
>  
>  
>  
> We would recommend filtered shower heads, ( about \$50 each), maybe for the clothes washer as well, and one Merlin Eco Solutions unit for about 80-100 homes ( one unit / station per every three blocks), at \$2,000 each, installed

by currently unemployed technicians and Vets- that will be paid to do this. We could distribute in 5 gallon camping containers, and each resident would have to lug their daily water no more than a block and a half. It's a pain – but what other REAL choice do we have? The filters they are distributing now are good for 100 gallons, untested, and again an eco-disaster in and of themselves. Our lead filters do not have to be changed for up to 10,000 each and the first primary filter is ceramic and can be cleaned re-used for as many as half a million gallons each!

>

>

>

> This same equivalent in bottled water equals 1,250,000 bottles spent PER DAY!! The raw cost, ( \$1/bottle) and associated cost of the current campaign are certainly not sustainable nor acceptable. Have you ever tried to shower with a bottle of water?

>

>

>

> Please see the Flint water test results attached. A photo of one that was being installed in a Flint shelter is also attached. The two samples in the other photos are from Michigan Works!, just down the street from your Office, before and after purifying.

>

> Our website is: [www.merlinecosolutions.com](http://www.merlinecosolutions.com)<<http://www.merlinecosolutions.com>>

>

>

>

> We are currently working on getting one or two installed at St. Mary's Church currently servicing the bottle distribution, homeless shelter and Michael's Soup Kitchen. This will make an immediate contribution and difference. We did this with funds from GoFundMe site and contributions! (see attached). By the time we get something going with you, you will have their support as we took their water samples yesterday and they are being tested today. Deacon Paul is our contact there. We are currently attempting to help Dr. Mona as well----

>

>

>

> FYI—Stanford University Medical Staff, Dr. Weiss, has endorsed this unit and science and Michigan State Chemistry and Biology Labs and Students will be monitoring the units we install to safeguard the residents and process. National Testing Labs have been the Lab we are using to date., (see attached).

>

>

>

> I can be reached and will come demonstrate and show off our unit and results whenever you have time – if you are inclined to help us.

>

>

>

> Thanks for the time--- and your awareness--- and focus on the solution—

>

>

>

> Sincerely,

>

>

>

> Joseph S. Novitsky, AIA

>

> Merlin Eco Solutions

>  
> O (248) 433-2030  
>  
> M (586) 995-2170  
>  
> Joe@JSN-AIA.com<mailto:Joe@JSN-AIA.com>  
>  
> Skype: JoeN-AIA  
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> [http://static.avast.com/emails/avast-mail-stamp.png]<http://www.avast.com/>  
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>  
> This email has been checked for viruses by Avast antivirus software.  
> www.avast.com<http://www.avast.com/>  
>  
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>  
>  
> ----- Forwarded message -----  
> From: Charles Chervenka <cjchervenka@gmail.com<mailto:cjchervenka@gmail.com>>  
> To: Joe Novitsky <joe@jsn-aia.com<mailto:joe@jsn-aia.com>>  
> Cc:  
> Date: Tue, 12 Jan 2016 20:36:17 -0500  
> Subject: Fwd: Lynn posted an update on "Water Purifier for Mission of Hope"  
>  
> Here's the site for funding. Just click on it.  
>  
> To get the test data google Merlin Eco Solutions and then click on "test results" at the top of the page.  
>  
> CJC  
>

[illegible]

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<[http://link.email.dynect.net/link.php?H=fRSsPyRTfXPA1bNH7n3imVZvebSdS9eyYiilh3rldq9TLVuUBWxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm\\_source%3Dinternal%26utm\\_medium%3Demail%26utm\\_content%3Dcta\\_button%26utm\\_campaign%3Ddupd\\_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUeIEExZExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWwlsLmNvbTs%3D](http://link.email.dynect.net/link.php?H=fRSsPyRTfXPA1bNH7n3imVZvebSdS9eyYiilh3rldq9TLVuUBWxypCiq9X3Ibhaz09ZuBBr0HNBqE6dfc7Ha%2B0TS3wNBn64r6pAmj5%2FYbpo%3D&G=21&R=https%3A%2F%2Fwww.gofundme.com%2FMERLINFORFLINT%3Futm_source%3Dinternal%26utm_medium%3Demail%26utm_content%3Dcta_button%26utm_campaign%3Ddupd_n&l=20160112145649.000000f892d5%40mail6-01-pao.dynback.net&X=MHw3NzY2NjI6VEVNUeIEExZExMzM7MXw3NzY2NjM6UVVFVUVJRF8zNzk5MzE5OTk7Mnw3NzY2NjQ6RE9NQUIOX2dtYWwlsLmNvbTs%3D)>

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

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**From:** Brownlee, Jeff (DTMB)  
**Sent:** Friday, February 19, 2016 10:44 AM  
**To:** Riehle, Jenni (DTMB)  
**Subject:** RE: Flint

Excellent! Thank you.

-----Original Message-----

From: Riehle, Jenni (DTMB)  
Sent: Friday, February 19, 2016 9:58 AM  
To: [rbrown@vogelandbrown.com](mailto:rbrown@vogelandbrown.com)  
Cc: Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Subject: RE: Flint

Mr. Brown,

Thank you for your interest in assisting the state with the emergency in Flint. Jeff Brownlee, Chief Procurement Officer has asked that I follow up with you.

We are currently keeping track of all vendors interested in supplying goods or services to aid Flint. We have taken your information down and it will be reviewed by the appropriate parties.

Our office does not have the latest lab reports, however, if a purchase needs to be based on such reports, those specifications will be details within the Request for Proposal (RFP). The state posts RFPs on the following bid posting website [www.Buy4Michigan.com](http://www.Buy4Michigan.com). If you are not already registered on that website, I would urge you to do so.

If you have any questions over the bid process you are welcomed to reach out to me. You may also visit our Contract Connect website at [www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect). If you would like to provide the state with additional information on your product, please submit a Flint Emergency Purchasing Form here: <http://www.michigan.gov/micontractconnect/0,4541,7-225-75359---,00.html>.

Thank you,

Jenni Riehle

Communications and Outreach Coordinator State Of Michigan : DTMB – Procurement Constitution Hall, 1st Floor, NE 525 West Allegan, Lansing, Michigan 48909

[RiehleJ2@michigan.gov](mailto:RiehleJ2@michigan.gov) : 517-284-7023  
[www.michigan.gov/micontractconnect](http://www.michigan.gov/micontractconnect)

-----Original Message-----

From: Richard Brown [<mailto:rbrown@vogelandbrown.com>]  
Sent: Tuesday, February 16, 2016 12:30 PM  
To: Weise, Kevin (MSP) <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)>  
Cc: [DCawthorne@kelley-cawthorne.com](mailto:DCawthorne@kelley-cawthorne.com); Brownlee, Jeff (DTMB) <[BrownleeJ@michigan.gov](mailto:BrownleeJ@michigan.gov)>  
Subject: Re: Flint

Kevin,

Thank you for your response. I apologize for this rather informal iPhone response; however, I am off-site until Friday and wanted to respond quickly as this problem dictates.

Our team is working up a proposal to conduct an on-site Demo to process your source water directly into a drinking glass.

However, as requested earlier, and I know you're in the process of building your team and dealing with 1000's of requests such as this, my engineers need a copy of your latest Water Test Lab Report which will identify all inclusive metals, minerals, microbial's, etc. in ppm's (Parts per Million), so we can set our patented equipment to remove all the undesirable elements from your water.

I am currently available by email and cell - 703-915-4318

Best regards,

Richard Brown  
President  
office 703-444-7978

aka Hot Dog  
Sent from my iPhone

> On Feb 16, 2016, at 10:03, Weise, Kevin (MSP) <[WeiseK@michigan.gov](mailto:WeiseK@michigan.gov)> wrote:

>

> Hello Mr. Cawthorne and Mr. Brown: I'm Rich Baird's chief of staff for the Mission Flint Team. He asked me to respond to your inquiry. Since you last spoke, we have set up a team at DTMB to help coordinate all the offers of assistance that we have received. There have been well over a thousand so far and they keep coming in every day.

>

> Mr. Jeff Brownlee is heading up the effort at DTMB and I have cc'd him here. I recommend that you send him the details on what your organization is looking to provide, along with any relevant informational items. We haven't done any procurement yet as the relief effort is still in the evaluation stage as to who needs what in the neighborhoods and what solutions are best implemented.

>

> Thanks again for you interest.

>

> Kevin Weise

> Chief of Staff

> Mission Flint

> 517-420-2652 (m)



---

**From:** Camp, William (DTMB)  
**Sent:** Wednesday, February 03, 2016 2:35 PM  
**Cc:** Falik, Tom A. (DTMB)  
**Subject:** Re: Flint response - Translation services

From: Cook, Rebecca (DTMB)  
Sent: Tuesday, February 2, 2016 8:26 PM  
To: Camp, William (DTMB)  
Cc: Falik, Tom A. (DTMB)  
Subject: Flint response - Translation services

FYI. Please follow up directly with Jeanette if Linguistica confirms rapid timeframes and pricing.

From: Doll, Jeanette (DTMB)  
Sent: Tuesday, February 2, 2016 7:13 PM  
To: Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
Subject: RE: State of Michigan Contract Question

Rebecca

LARA was able to send the documents for translation it will take 2-5 days for each document. But they would be interested in another company, especially if they provide a quicker turnaround time.

Jeanette

From: Cook, Rebecca (DTMB)  
Sent: Tuesday, February 2, 2016 3:53 PM  
To: Doll, Jeanette (DTMB) <dollj@michigan.gov>  
Cc: Camp, William (DTMB) <CampW@michigan.gov>; Falik, Tom A. (DTMB) <FalikT@michigan.gov>; Wilke, Lacey (DTMB) <WilkeL@michigan.gov>  
Subject: FW: State of Michigan Contract Question

Jeanette

There is a statewide contract for translation services. The buyer (Will Camp) and the Services Division Director (Tom Falik) are copied. Will can confirm whether the phone number for rushes operates outside of business hours. Linguistica may be able to fulfill any future needs for the SEOC.

Did they already take care of the need over the weekend for Hmong and Mandarin?

Rebecca

From: Camp, William (DTMB)  
Sent: Tuesday, February 02, 2016 1:43 PM  
To: Keilen, Nicholas J (DTMB) <KeilenN@michigan.gov>  
Subject: FW: State of Michigan Contract Question

This is what linguistica said back. I presume theyre doing it pursuant to contract rates.

Will

William Camp

Department of Technology, Management, & Budget Procurement Buyer Direct Dial: 517-284-7022

From: Sabrina Morales [mailto:smorales@linguisticainternational.com]  
Sent: Tuesday, February 02, 2016 1:37 PM  
To: Camp, William (DTMB) <CampW@michigan.gov>  
Cc: Miguel Tenorio <miguel@mylinguistica.com>; Francia Delgado <francia@mylinguistica.com>; Wilson Ostojic <wilson@linguisticainternational.com>  
Subject: RE: State of Michigan Contract Question

Dear William,

Yes, we are able to assist with document translation for over 250 different languages.  
Our services are available with advance notice as well as rush translations.

For both advance notice and rush translations please email your document to [translations@linguisticainternational.com](mailto:translations@linguisticainternational.com)

For rush translations you should also call us at (866) 908-5744 option 1 and ask to speak with Francia Delgado ([francia@mylinguistica.com](mailto:francia@mylinguistica.com)) or Miguel Tenorio ([Miguel@mylinguistica.com](mailto:Miguel@mylinguistica.com)) the translation coordinators in charge of your account. By calling them you are ensuring that your expedited need is clearly understood and we can quickly give you a completion timeline.

Let me know if you have any questions. We will be happy to expedite any of your translation requests.

Thank you,

Sabrina Morales, MPA  
Linguistica International  
Office: 801.617.1958  
Mobile: 801.842.2333 Feedback is always appreciated.  
Fax: 801.262.4622  
E-mail: [smorales@linguisticainternational.com](mailto:smorales@linguisticainternational.com)  
[www.linguisticainternational.com](http://www.linguisticainternational.com)

"Die Sprache eines Volkes ist seine Seele." "The language of a people is its soul. Fichte

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From: Camp, William (DTMB) [mailto:CampW@michigan.gov]  
Sent: Tuesday, February 2, 2016 7:58 AM  
To: Sabrina Morales <smorales@linguisticainternational.com>  
Subject: State of Michigan Contract Question

Good Morning,

I am reaching out today with a couple questions. Given the water issues in Flint, which have made national news, the State has additional translation needs. Various documents, including water filter instructions may need to be translated into a variety of languages for the residents of Flint. The State would need services provided with both standard and expedited lead times and a 24/7 contact for the Flint response teams. Are these items Linguistica could provide, and if so what languages could be provided? More details will be provided as we discuss further.

I look forward to hearing from you,

Yours,  
Will Camp

William Camp

Department of Technology, Management, & Budget Procurement Buyer Direct Dial: 517-284-7022

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**Sent:** Thursday, February 04, 2016 8:16 AM  
**To:** Doll, Jeanette (DTMB)  
**Subject:** RE: Flint response - Translation services

Hey Jeanette, Pricing is

William Camp

Department of Technology, Management, & Budget Procurement Buyer Direct Dial: 517-284-7022

From: Doll, Jeanette (DTMB)  
Sent: Wednesday, February 03, 2016 5:35 PM  
To: Camp, William (DTMB) <CampW@michigan.gov>  
Cc: Falik, Tom A. (DTMB) <FalikT@michigan.gov>  
Subject: RE: Flint response - Translation services

Thank you – I'll share with LARA. Do you have pricing?

Jeanette

From: Camp, William (DTMB)  
Sent: Wednesday, February 3, 2016 2:52 PM  
To: Doll, Jeanette (DTMB) <dollj@michigan.gov>  
Cc: Falik, Tom A. (DTMB) <FalikT@michigan.gov>  
Subject: Re: Flint response - Translation services

Hey Jeanette,

I've heard more from Linguistica. They've said as follows:

"Pricing will be based on the contract rates for all Standard requests.

The expedited time frames are as follows:

Standard Request  
0 to 500 words document (48 hours turnaround)  
501 to 3000 words document (72 hours turnaround)  
>3000 will need to be evaluated to provide completion time frame.

Do you have any idea on the expected volume / frequency of requests?

Rush orders can be completed within 24 hours as long as word count is less than 500 words. Rush requests will be priced higher based on document specs as well as formatting / editing requirements."

If we had a sample document, we could get a particular quote (assuming it's similar things needing translating repeatedly).

Hope this helps further,

Will Camp

From: Cook, Rebecca (DTMB)  
Sent: Tuesday, February 2, 2016 8:26 PM  
To: Camp, William (DTMB)  
Cc: Falik, Tom A. (DTMB)  
Subject: Flint response - Translation services

FYI. Please follow up directly with Jeanette if Linguistica confirms rapid timeframes and pricing.

From: Doll, Jeanette (DTMB)  
Sent: Tuesday, February 2, 2016 7:13 PM  
To: Cook, Rebecca (DTMB) <CookR6@michigan.gov>  
Subject: RE: State of Michigan Contract Question

Rebecca –

LARA was able to send the documents for translation – it will take 2 – 5 days for each document. But they would be interested in in another company, especially if they provide a quicker turnaround time.

Jeanette

From: Cook, Rebecca (DTMB)  
Sent: Tuesday, February 2, 2016 3:53 PM  
To: Doll, Jeanette (DTMB) <dollj@michigan.gov>  
Cc: Camp, William (DTMB) <CampW@michigan.gov>; Falik, Tom A. (DTMB) <FalikT@michigan.gov>; Wilke, Lacey (DTMB) <WilkeL@michigan.gov>  
Subject: FW: State of Michigan Contract Question

Jeanette

There is a statewide contract for translation services. The buyer (Will Camp) and the Services Division Director (Tom Falik) are copied. Will can confirm whether the phone number for rushes operates outside of business hours. Linguistica may be able to fulfill any future needs for the SEOC.

Did they already take care of the need over the weekend for Hmong and Mandarin?

Rebecca

From: Camp, William (DTMB)  
Sent: Tuesday, February 02, 2016 1:43 PM  
To: Keilen, Nicholas J (DTMB) <KeilenN@michigan.gov>  
Subject: FW: State of Michigan Contract Question

This is what linguistica said back. I presume they're doing it pursuant to contract rates.

Will

William Camp

Department of Technology, Management, & Budget Procurement Buyer Direct Dial: 517-284-7022

From: Sabrina Morales [mailto:smorales@linguisticainternational.com]

Sent: Tuesday, February 02, 2016 1:37 PM

To: Camp, William (DTMB) <CampW@michigan.gov>

Cc: Miguel Tenorio <miguel@mylinguistica.com>; Francia Delgado <francia@mylinguistica.com>; Wilson Ostojic <wilson@linguisticainternational.com>

Subject: RE: State of Michigan Contract Question

Dear William,

Yes, we are able to assist with document translation for over 250 different languages.  
Our services are available with advance notice as well as rush translations.

For both advance notice and rush translations please email your document to [translations@linguisticainternational.com](mailto:translations@linguisticainternational.com)

For rush translations you should also call us at (866) 908-5744 option 1 and ask to speak with Francia Delgado ([francia@mylinguistica.com](mailto:francia@mylinguistica.com)) or Miguel Tenorio ([Miguel@mylinguistica.com](mailto:Miguel@mylinguistica.com)) the translation coordinators in charge of your account. By calling them you are ensuring that your expedited need is clearly understood and we can quickly give you a completion timeline.

Let me know if you have any questions. We will be happy to expedite any of your translation requests.

Thank you,

Sabrina Morales, MPA  
Linguistica International  
Office: 801.617.1958  
Mobile: 801.842.2333 – Feedback is always appreciated.  
Fax: 801.262.4622  
E-mail: [smorales@linguisticainternational.com](mailto:smorales@linguisticainternational.com)  
[www.linguisticainternational.com](http://www.linguisticainternational.com)

"Die Sprache eines Volkes ist seine Seele." "The language of a people is its soul." Fichte

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From: Camp, William (DTMB) [mailto:CampW@michigan.gov]  
Sent: Tuesday, February 2, 2016 7:58 AM  
To: Sabrina Morales <smorales@linguisticainternational.com>  
Subject: State of Michigan Contract Question

Good Morning,

I am reaching out today with a couple questions. Given the water issues in Flint, which have made national news, the State has additional translation needs. Various documents, including water filter instructions may need to be translated into a variety of languages for the residents of Flint. The State would need services provided with both standard and expedited lead times and a 24/7 contact for the Flint response teams. Are these items Linguistica could provide, and if so what languages could be provided? More details will be provided as we discuss further.

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Yours,  
Will Camp

William Camp

Department of Technology, Management, & Budget Procurement Buyer Direct Dial: 517-284-7022

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**From:** DTMB Facilities <dtmb@govsubscriptions.michigan.gov>  
**Sent:** Wednesday, October 28, 2015 8:17 AM  
**To:** Camp, William (DTMB)  
**Subject:** Facility Notification: Constitution Hall



Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.  
Security Notification

# Protest Activity

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## Date/Time:

Wednesday, October 28, 2015 from 12:00pm to 4:00pm

## Details:

Please be aware that there is a protest event planned for today, October 28, outside of the Constitution Hall from 12:00pm to 4:00pm. The event is being held in response to the water condition in Flint. Please plan your daily activities with this in mind as a large turnout for this event is anticipated. DTMB and MSP will be working together to monitor the situation.

## Contact:

DTMB Customer Service Center, [DTMB-Customerservice@michigan.gov](mailto:DTMB-Customerservice@michigan.gov) or 517-373-6227

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This email was sent to [campw@michigan.gov](mailto:campw@michigan.gov) using GovDelivery, on behalf of DTMB · Lewis Cass Building · 320 South Walnut Street · Lansing, MI 48933 · 517-373-1004